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THE
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ORIGINAL CONTRIBUTIONS.

A Few Observations on the Treatment of Exanthematous Diseases.

BY E. A. COBLEIGH, M. D., ATHENS, TENN.

[Read before the Hiwassee Medical Society, August 14th, 1879.]

EVERY physician, whether in city or country, meets, more or less, exanthematous disease, and, meeting it, he knows that many and various plans of treatment have been devised for the conduction of this large and important class of affections. Different practitioners entertain different views of the pathology of the exanthema; and the indications for therapeusis, as founded on these views, must, and do, vary widely. Indeed, some of the methods of treatment diametrically oppose each other. One physician bleeds and pursues an active antiphlogistic plan. A second resorts to stimulants in every case, believing the vital powers to be weakened. A third, on the zymotic theory of disease germs multiplying, fermenting and playing general havoc in the economy, relies almost exclusively on antiseptics. A fourth contents himself with expectancy, regarding nature as best fitted for the contest when uninterfered with, or else he treats complications and leaves the main pathological process to follow its own course to recovery or death from the very outset of the attack, according to the natural tendency of the affections, or the severity of the individual case. Each has his hobby, and each claims the greatest percentage of successful result. So, too, I ride my hobby, and come here to-day to present it before you, leaving you to judge of its merit or demerit, according to your own common sense, and physiological and pathological opinions. If it be founded on sound doctrine, if it yield fair success, if it be *practical*, then surely it demands attention, and good may result, whether it prove new or not, and despite my frank avowal, right at the outset, that I can not claim originality for the ideas herein set forth.

A multiplicity of forms of treatment for any disease, or class of diseases, proves one of two things: either that the affection, or class, is readily "cured" by almost any treatment, or, in other words, has an intrinsic tendency to spontaneous recovery; or, secondly, it is of such a nature that our pathology and therapeutics are alike at fault, the diseased action baffling all our research and treatment, so that practitioners seize with avidity upon any new plan offering the slightest prospect of improvement on, and greater success than, the old and tried methods. Of the eruptive affections, both facts are true. Some are so mild as to demand no interference whatever; others, at times, manifest an uncontrollable malignancy. Such being the case, no apology is necessary for my venturing a few suggestions on the subject.

In all diseases, when cure is impossible, mitigation may be attainable, or pain, at least, may be more or less completely allayed. If this be so, we are justified in attempting to better the condition of our patient; and more, it is *imperatively* our *duty* to do so. Again, where there is *no* special tendency to DEATH, if we hold it in our power, either to abridge a disease, or lessen the agony of one which can not be cut short, it is only right for us to accomplish this. And I hold that the plan of procedure, herein advocated, will at least do so much, if, indeed, it does not save life, as I am personally convinced that it does.

Only a few years back in the history of medicine we find it a universal custom to "sweat" a fever by external and internal heat. To a certain extent we still find this usage obtaining. Text-books tell us to give diuretics, diaphoretics, salines, etc., for the purpose of unlocking the suppressed secretions. For a moment let us consider this subject. The first step of hyperæmia leads to increased nutrition from excess of plasma in the affected part; and, from this same cause—excess of stimulus—a heightened secretion of neighboring glands occurs. Only a step further and secretion stops abruptly. Will you break the inflammation by forcing re-secretion? *Can* it be done? Not at all. Lessen the hyperæmia, lessen the intensity of diseased action, and secretion re-establishes *itself*. And it is only by such a process that diaphoretics —so-called—ever produce sudorific action in pathological conditions involving overaction of capillary and cell.

Well, time eradicated to a large extent the prevailing theories of disease, and overturned the heating methods of treatment. Physicians learned to coax, instead of driving, Dame Nature. The parched tongue of the fever-burned sufferer was allowed to taste what his whole soul craved—cool water. And fevers proved less fatal, and less distressing, under the new plan. Gradually the cooling treatment fought its way, inch by inch, into the wider application and more general adoption. Having learned that the inside could be cooled, in fever, with impunity; having found out that sweating did not *end a fever*, but that when the fever lessened, sweating occurred spontaneously; nor could it be forced to appear earlier; having ascertained that the intensity of the pyrexia was in direct ratio with the sufferings, complications and the fatality of fevers, practitioners soon recognized that the *latter* results depended upon the former for their causation, and dared to even fight the fever-fire with surface cold—cold without and cold within was the plan. Cold as intense and prolonged as necessary in each particular case, only limited by its effect, freely and fearlessly used as long as the thermometer indicated a single degree of temperature above the normal standard. We meet fire by water, heat by cold, the fire of tissue destruction evolving fever heat by the cold of water chilled to a requisite degree. Experiments unnumbered proved that no harm could result to the system from this course *so long as elevation of bodily heat persisted*, and further demonstrated, beyond cavil, that mortality rates materially improved under it.

But while this cold-water treatment of idiopathic fevers forced adoption, a long-rooted notion that a "breaking out" on the body ought not to be driven in, lest harm result, continued to cling to profession and people alike, and for a long time no one had the temerity to venture the use of this treatment in any of the exanthemata. Therefore the old plans were persisted in (inconsistent as this may seem) in this class of diseases, and are so persisted in to the present day even by many practitioners who use the cold in other cases. There are those who would not hesitate to put a typhoid or pneumonia patient into a bath, or the wet pack, who *would* recoil from the mere suggestion of any cold application in rubeola, scarlatina, erythema, variola, etc. "O consistency, thou art a jewel." Why this fear? Why should the treatment not be equally good in precisely similar cases? Let us see.

What is an exanthematous disease, as the term is generally used? It is not my intention to go into the minutiæ of the different affections constituting this important group. I have neither time, inclination nor ability for such a task. But I will briefly sum up thus: To my mind, an eruptive fever is nothing more than an essential fever with a surface eruption added thereto. This definition, while I believe it correct, and soundly founded on true pathology, does not, and need not, involve the question of zymosis for present purposes. If, then, this be so, *that* therapeutical reasoning which is applicable to the essential fever is, so far as it goes, equally applicable to the other essential fever, plus the eruption, which constitutes the exanthema.

We know full well that the first danger of all fevers of high grade is the intensity of the disease itself—the intensity of the febrile action, the hyperpyrexia. If we surmount this we overturn the first and essential element of death. This it is now in our power accurately to estimate by the clinical thermometer. Heat means destructive metamorphosis of tissue. Excessive heat means rapid and death-tending destruction of cell elements, tissue change so fast occurring that repair can not keep pace therewith, so that, unless checked in a short time, local and general death is inevitable. It is the body consuming itself, nowhere more vividly exemplified than in those terrible cases of malignant malarial fever where reaction from the first chill—in which the thermometer shows a rapid and high rise of intense temperature, notwithstanding the sensations of cold to patient and bystander—never takes place. If, then, danger lies in hyperpyrexia at all, why any less in eruptive diseases than in others? I plant myself squarely here. This is the whole issue, and can be susceptible of but one answer. There *is* fatality lurking in excessive bodily heat, alike in typhus, typhoid, yellow fever, scarlatina, malarial fevers, rubeola, smallpox, and every other fever of high grade, be it idiopathic, inflammatory or eruptive. And if the hyperpyrexia and danger can, *pari passu*, be overcome by cold, external and internal, in the way of drinks, the pack, sponging, ice, or baths, in one case, it ought to be in all.

But here I am met by the objection that there is a difference—a complication, if you please—in the different cases. I am admonished that this is all well enough in non-eruptive cases, but a new element of danger arises under such treatment in those attended by eruption. The eruption, driven in, will produce more fatal effects than the heat of the fever is likely to do if unarrested. Now I confess that I so regarded it once myself. But rather extensive acquaintance with rubeola, varicella, scarlatina, etc., to a lesser extent, variola has convinced me that it is difficult, if, indeed, it be not utterly *impossible*, to "drive in" an eruption so as to do any harm. And I never hesitated to hurry the cure of a "breaking out," be it of whatsoever kind it may, exanthematous fever, rash, papule, vesicle or pustule, just so rapidly as I can. Some may condemn me for this rule. I know full well that many practitioners give remedies to "keep the eruption out." I know, further, that not infrequently a disappearance of an eruption, and the manifestation of internal disturbances, occur almost simultaneously. This is attributed to the too sudden retrocession of the dermal disorder, both by a great many of the profession and by all the laity. Is this true? My observation and reasoning, based on results of practice, lead me to believe otherwise. In a majority of such cases occurring in my own hands, I have been able to demonstrate, to my personal satisfaction at least, that the retrocession was not the *cause* of the internal mischief, but the *consequence* thereof. Let any serious disorder arise within the body, when an eruption, however trivial, such as mild herpes or lichen, exists upon the surface, and nine times out of ten the superficial affection disappears, either wholly or in part, at once. Reasoning from this fact, I was led to regard the whole process as one of revulsion—a disease of greater intensity *within*, leading to a check upon, or the resolution of the *external* disorder, which may or may not return, and run its course after the subsidence of the other trouble.

And it is so in the exanthema. My observation is that you *can not* cause disappearance, or striking in of the eruption, except it be by setting up a complication of greater intensity in the interior organs. This is so of scarlatina and rubeola, with which I have had most experience, and I have seen nothing to shake my belief in a similar condition of affairs in variola, varicella, and other eruptive affections. Authors say, and I have seen cases to verify the statement, that both diseases occur without any external manifestation whatever. In our recent epidemic of rubeola, I saw a number of cases with very little eruption, and two manifesting none at all. I have seen many such cases of scarlet fever during epidemics witnessed within the last few years. Further, not only are these cases not necessarily more severe than those where the eruption is free and extensive, but they are even usually more mild; and I have frequently known a sudden disappearance of the rash from the whole superficies of the body without the least unpleasant symptom following. In small-pox the heavier and more extensive the rash, the graver is the disease. Why not so often of other exanthems? It is. The dermal inflammation in scarlet fever and measles is frequently excessive, adding intensity to the pyrexia, and even causing delirium and convulsions through reflex action, or the torture of the skin symptoms.

Many cases need no treatment. But in most instances, though nothing but the patient's comfort is involved, it is worth while to resort to more or less active measures of therapeusis. What shall be done? I will now state my own plan of procedure, founded on the reasons deduced from what I have already stated herein. Regarding the eruptive fevers as only idiopathic fever with skin manifestations superadded, I pay no attention whatever to the eruption, care not whether it appears at all or not (if I am sure of my diagnosis), but give treatment according to the severity of each individual case, finding myself especially obliged to be vigilant in preventing mischievous interference on the part of over-anxious and egotistical friends or relatives. I allow cold water, ice or iced drinks, including lemonade or ice cream, sometimes iced lime water, freely and absolutely interdict warm drinks of every kind; sometimes this is enough. In more severe cases I order and enforce cool, cold or iced sponging, the wet pack, and even cold baths where fever is high, delirium active, or complications threatening from intensity of febrile action. These are my sheet-anchors. If so desired, antiseptics, tonics or sedatives can also be given, along with the course, by those who have peculiar views of the pathology of these affections, and they will not interfere with the febrifuge action of the cold water. I frequently supplement the cold water treatment with quinia, or other arterial sedatives, in full doses. Salines, laxatives, opiates in some cases, all come in play at times, but *always in conjunction* with the cold water, except in those rare cases where great prostration indicates measures of stimulation from the outset and entirely contraindicates sedation by cold.

Now, gentlemen, I have not time to give cases in detail, or I could cite many to prove the efficacy of the plan I advocate. Nor do I claim that harm may not be produced by the indiscriminate use of these measures. But I do claim, and have demonstrated to my own satisfaction at least, that, properly and scientifically used, these measures, cold in its different degrees, and sometimes quinia in *heavy* doses as an adjunct, and producing parallel effects in the same way—by sedation—with the thermometer at hand as a reliable guide to "when" and "how far" treatment is needed, or must be carried, may be accessible by all practitioners, can be useful in nearly every case, and will not only mitigate all severe fevers of exalted character, the exanthemata included,but will, in most instances, materially abbreviate them. And I further insist, that whether the eruption be present or absent, sparse or free, slight in extent or involving almost universal dermatitis, there is *absolutely no danger* of producing evil by retarding or "driving it in."

Then, let me implore you, when occasion presents, to not despise pure cold water, one of God's freest gifts to East Tennessee especially, and to most all of the inhabitable portions of our globe, but use it freely and see its good effects for yourselves. The cool or cold sponging can be practiced anywhere; the wet pack also may be improvised in a moment, and if no bath-tub is at hand when wanted, four long poles, a piece of buggy or table oil cloth, of sufficient size, and a few tacks, will readily enable you to make one. Tack or sew the four edges of the oil cloth to the four poles, and leaving a foot or so unattached at each end, lay two of the poles across two hairs, the other two poles resting by their ends upon them; bring the chairs together to allow the oil cloth to sag down on to the floor. Now tack the unattached oil cloth to the poles; fill with water of the desired temperature, and you are ready to place your fever-parched patient in a bath, to his prompt relief. Because we lack the conveniences of a metropolis, there is no reason why we may not and should not give our patrons the benefits of the most recent and improved methods of treatment, at least in this particular. Again I say, try it. If used carefully and well, nothing but good and satisfaction can result, and I know there is a wide field for change in practice in this matter right here in our own territory, and even among our own members.

"Case of Puerperal Eclampsia, Following Delivery," with Remarks.

BY N. C. MORSE, A. B., M. D., ELDORA, IOWA.

THE patient, Mrs. J. H., was a primipara, æt. 23, of medium height, plethoric.

On my first visit, made about the middle of the ninth month, I noted the following symptoms: There was marked œdema of the lower extremities—the feet, legs, and vulva being swollen to an enormous size—but there was no dyspnœa, headache, or other premonitory symptom of eclampsia. There was no ascites, nor œdema of face or hands.

The urine was carefully examined, which yielded but a slight trace of albumen, and no casts (it may be well to remark that the urine, tested, was constantly alkaline, and the carbonate of ammonia, which is the product of decomposition of the urea, would necessarily have dissolved all casts should they have been presented). Her appetite and general health being tolerably good, I thought that, by proper management, she might be carried through her confinement without convulsions. Diaphoresis was established, also mild catharthis, and the patient's diet was made to consist largely of milk.

On August 5, 1879, she had labor pains recurring at irregular intervals, but labor did not fully set in until the evening of the 6th inst.

I arrived about 1 o'clock, and the os being sufficiently dilated, I ruptured the membranes. This was followed by violent and frequent bearing-down pain, and the head descended past the superior strait. For the next three or four hours there was very little if any progress. The pains being of a lancinating character, resort was had to the extract of ergot, with hot and cold applications to the spine, but without effect, the patient being considerably exhausted, pulse frequent, anxious, worried expression, and recurrent pain, with little if any expulsive power, and the head presenting in the left occip. ant. position. I concluded to deliver at once, which I did with forceps.

After adjusting the forceps, I made traction, gradually bringing down the head to the vulva, when the forceps were removed. Rupture of the perineum seeming to be inevitable, a lateral incision was made in each labia, and the labor soon terminated, though the incisions did not prevent a "*partial rupture*" of the perineum. The child was a boy, and weighed twelve pounds.

About an hour after delivery, she was suddenly seized with a most violent convulsion, which lasted five or ten minutes, after which she was comatose. Hemorrhage having been considerable during labor, venesection was not deemed necessary, but an enema of hydrate of chloral ʒI., in an ounce of starch water, was immediately given, together with the inhalation of amyl nitrate. After this, upon the suggestion of Dr. B. F. Kierulff, who was now called in consultation, bromide of potassium, grains, twenty, was given every two, four, or six hours as necessary, "pr. orem," in place of chloral hydrate. Upon examination, the urine was now found to contain a greater quantity of albumen than before, and on the morning of the second day it was found in abundance, the œdema disappeared rapidly, and, beyond frequent twitching of the limbs, there was no return of the convulsions. Perineal rupture was treated by tying the limbs together, and antiseptic washes were freely used. The patient made a good recovery.

A few words relative to the probable cause of these convulsions would appear to be appropriate. Sir J. Y. Simpson, upon this subject, says: "Usually a state of albuminuria leads to convulsions, which, however, is a transitory, morbid condition, from which the patient recovers in a few days *after delivery*, and the affection does not depend upon, or result in any actual change of structure in the kidneys."

Frerichs, from his experiments, concludes that the active poison is the carbonate of ammonia produced by the decomposition of the urea, and he does not admit of the essential inflammatory nature of the disease, and in explanation of the formation of the hyaline tube casts, says that the inflammatory theory can only hold good in so far as the exudation of blood-plasma is connected with a paralytic dilatation of the capillaries.

Braun, however, broadly maintains, "that the disease is of an inflammatory origin, and that the nature of the morbid process is identical with that of Bright's disease."

When the uræmic theory was advanced, it was assumed that in a large proportion of cases, albuminuria, and the consequent succession of pathological changes were due to pressure on the renal veins. This, to a certain extent, is true; but it is not to be inferred that pressure on the renal veins can account for all cases. For, as in the case mentioned, the symptoms were developed *after* delivery, when such pressure as is implied is obviously impossible.

That aluminuria and puerperal eclampsia are mutually dependent upon each other, or at least of simultaneous occurrence in the vast majority of cases, is an assertion not likely to be controverted; but it is by no means agreed as to the albumen and the paroxysm, which is the cause and which the effect. Certainly in this case the albumen was the effect, as it was not detected until after the convulsion occurred

The conclusions to be deducted from the case are: That all convulsions of pregnant women are not uræmic—that there are several conditions possible—First, uræmia; Second, cerebro-spinal reflex irritation of uteri origin; Third, cerebro-spinal congestion; connected especially with the bearing down efforts of labor itself. (*Vide* Hartshorne, p. 310.)

And when we take into consideration the long, tedious labor, the instrumental delivery, the shock of, and subsequent to, the rupture of the perineum, and the absence of the abmumen prior to the convulsions, we must conclude that the cause of the convulsions in the case related was not uræmia, but the result of cerebro-spinal reflex irritation.

SELECTIONS.

The Medical Society of the County of New York.

Stated Meeting, May 26, 1879.—*Dr. A. E. M. Purdy, Vice-President, in the Chair.*

THE TREATMENT OF INFANTILE DIARRHEA.

DR. A. JACOBI read an important paper on the above subject, of which the following is an abstract:

Of all the deaths in the first year of life forty per cent. in round number were due to diseases of the digestive organs, and half as many to such of the respiratory organs. In the second year the main cause of death changed ompletely; for of all the forty-five per cent. of deaths taking place in that year, but nine were due to digestive, and thirty-six per cent. to respiratory disorders. Thus in the first year, stomach and intestines; in the second, bronchi and lungs, were the sources of high death-rates.

Mortality diminished with every day of advancing life. Every additional hour improved the baby's chances for preservation. Almost one-half of the infants dead before the end of the first year died before they were one month old. Thus the causes of disease were the more active the earlier they were brought to bear upon the young with their defective vitality.

Two grave conclusions were to be drawn from that fact. The first was, that the diminution of early mortality depended on avoiding diseases of the digestive organs by insisting upon normal alimentation. That was principally important in the first few months. While breast-milk had been shown to lower infant mortality through the whole first year, it did so more on the first few months. Thus, though an infant might not be fed on breast-milk through the whole normal period of nursing, a great gain, indeed, was accomplished by insisting on nursing, though for a limited time, perhaps two months only. There were but few mothers but were capable of nursing during that brief time, and none who ought to be spared the accusation of causing ill health or death to her baby if she refused to nurse it at least through the first dangerous months. The second conclusion, resulting from many figures, was that the dietetic problems and rules for the infant concerned digestive organs mainly, so much so indeed, that infant dietetics and the dietetics of the infant digestive organs appeared nearly identical.

It was true that in this city we met with a high mortality, even in children of more than a year. In fact, public opinion looked for a higher mortality in the second than in the first summer. The fallacy of that assumption could be easily corrected by the statistical reports. The second summer was the period of danger in part only because of the heat of the season, but mainly of the errors in feeding. Conscientious and intelligent families in good circumstances were not apt to lose their infants in their second summer.

Nor was it necessary that he should insist upon the danger incurred by the belief that diarrhea—a pathological condition—was a normal attendant on and a relief of a physiological process such as dentition. It was certain, that very few, if any, popular beliefs had been more destructive than that an intestinal catarrh must be left alone, no matter from what source it originated.

Healthy infants had a normal tendency to loose, liquid, or semi-fluid evacuations from the bowels. The causes were partly in the condition of the intestinal tract, and partly in the nature of the normal food, viz: breast-milk. The peristaltic movements were very active; the young blood-vessels were very permeable; the transformations of surface cells very rapid; the peripheric nerves very superficial, more so than in the adult, whose mucous membrane and submucous tissue had undergone thickening by both normal development and morbid processes. In the young infant the peripheric ends of the nerves were larger in proportion than in the adult; the anterior horns of the nerve-centers were more developed than the posterior ones. Thus the greater reflex irritability of the young, particularly in regard to intestinal influences, was easily explained. Besides, the action of the sphincter ani was not quite powerful, the fæces were not retained in the colon and rectum, and no time was afforded for the reabsorption of the liquid or dissolved constituents of the fæces. Moreover, the frequency of acids, sometimes normal, in the small intestines gave rise to the formation of alkaline salts with purgative properties.

The nature of breast-milk, even when absolutely normal, was such as to facilitate frequent large, and fluid evacuations.

FAT.

First, as to its fat where no food was given but mother's milk, *a good deal of fat was eliminated* without any change.

What had been called detritus in the fæces was mostly fat, and very probably remnants of intestinal epithelium. Practically that *fact* was of the very greatest importance. The conclusion was, *we were almost certain to give too much fat; it was scarcely ever probable that there was too little.* Therefore the addition of cream was reprehensible, no matter in what shape. Thus in the most normal milk there was more fat than required.

In the first period of lactation the glandular transformation was not yet accomplished. It required days to exhibit casein. At the same time the percentage of butter and salts was very high indeed, both of which explained the *laxative* character of colostrum.

There was no stability in the nature of breast-milk, and very much less in the human than in the animal female, for obvious reasons. Its constituents and effects might even change from hour to hour, from day to day, sometimes it would be milk, sometimes milk with transuded serum.

SUGAR.

Again, as to sugar. It was abnormally plentiful in colostrum, and in some milks, at times, its percentage was lower than normal. In the former it was purgative, in the latter its absence one of the causes of constipation. Thus the addition of a piece of sugar—which need not be milk sugar—to breast-milk was apt to heal constipation in the infant. He dissolved it in the smallest possible quantity of water, say a teaspoonful, and let the baby take it before each nursing.

CASEIN.

Fourthly, as to casein. When present in an abnormally high percentage, it might either constipate or by remaining undigested, and, acting as a local irritant, produce a diarrhea. In those cases of diarrhea the stools were mixed with white flocculi, small or large, sometimes in astonishing quantities and for a long period. The treatment of such diarrhea was by no means very simple, unless the breast-milk was changed. When such a change could not take place, he added oatmeal gruel or barley-water in such a manner that a few teaspoonfuls of it were administered to the baby before each nursing.

Dr. Jacobi then passed to the examination of some of the articles of food mostly used for the young.

Goat's milk ought to be rejected because of its large percentage of fat.

Cow's milk contained more butter than human milk, and if the latter was not entirely digested, the former would certainly leave even more remnants to encumber the intestinal canal. The reaction of human milk was alkaline, that of cow's milk rarely to the same degree.

But the main difficulty was in the large percentage and in the nature of the casein of cow's milk. The casein of cow's milk and the casein of woman's milk were two different substances. The former had an acid reaction and was soluble in water in the proportion of 1–20. The latter was alkaline or neutral, and almost entirely soluble in water. There was less casein in woman's milk than in cow's milk. The fact was beyond doubt that pure cow's casein was very much less digestible than human casein.

At all events, no addition we knew of could render cow's casein more digestible than Nature made it, and the only thing which could be obtained by any sort of manipulation of the milk was to make it less injurious. Perhaps, however, the plan upon which Dr. J. Rudisch had acted might recommend itself to the attention of the practitioner. In order to make cow's milk more digestible, he had introduced into Dr. Jacobi's practice a mixture which promised to be of great value in all those cases in which coagulability of the milk was the prominent obstacle to its usefulness. The mixture suggested by him, and used by them up to that time mainly in diseases of adults, such as anæmia, gastric catarrh, ulcer of the stomach, slow convalescence, etc., was the following: to one pint of water add one-half teaspoonful of officinal dilute muriatic acid. To that mixture add one quart of raw cold milk; mix the two liquids thoroughly and then boil for ten or fifteen minutes. He had found that preparation to be very digestible, and well tolerated by very feeble digestive organs. Valuable as that preparation of cow's milk might prove in future, there was one method for making cow's milk more available, which was at once simple and effective. No cow's milk ought to be administered without the addition of chloride of sodium. Not only cow's milk, but also—and even much more so—farinaceous admixtures to cow's milk required its presence in the food.

PREVENTIVE TREATMENT.

The preventive treatment of diarrhea, depending on defective alimentation, consisted in so changing and arranging the milk used for babies that the casein would not coagulate in large lumps, and thus become more digestible. That object could be obtained by adding such farinaceous food as did not contain much starch. It consists in diluting the boiled and skimmed milk with barley-water or oatmeal gruel. It must be boiled to check its tendency to become sour, to remove a portion, though small, of its casein and fat, and to expel the gas contained in the raw milk to the amount of three per cent.

Of the two, he preferred barley for general use. He recommended that the barleycorn which was employed for infant diet should be ground as thoroughly as possible in a coffee-mill, both in order to diminish the period necessary for cooking it, and also to retain the gluten. *It was even preferable, for very young infants, to cook the barley whole for hours*, thereby to burst the outer layers of cells, empty their contents, and then, by straining, to get rid of the larger part of the starch which was found toward the center. There was no danger to which little children were so liable as that which arose from their tendency to diarrhea. His advice, therefore, was to administer barley to children who manifested a tendency to diarrhea, and oatmeal to those having a tendency to constipation, and, whenever a change occurred in the intestinal functions, to give one or the other, according as constipation or diarrhea predominated.

He held that mixture to be the *conditio sine qua non* of the thorough digestion of the milk. It only would insure the proper nourishment of the infant. With that food alone he had seen children endure the heat of summer without any attack of illness whatever. He had occasion again and again to be convinced of the reliability of the mixture. It had the advantage, too, that it necessitated no dependence upon the honesty or competence of the apothecary or manufacturer, but could be prepared by any one, however poorly situated. Should a slight diarrhea occur, or a little casein be vomited (a rare accident, to be sure), or casein occur in the stool, then all that was necessary was to diminish the proportion of milk. It might sometimes be necessary, though very seldom, to withdraw the milk entirely for a time, but only in cases of real illness. If the physician or attendants had properly apportioned the ingredients of the mixture, we might be rather sure that the child's digestion and assimilation would be regular and nornal. Infants that were partly nourished at the breast almost invariably thrived well with the addition of his mixture. Children from their fourth or fifth month and upward, might often be fed with it exclusively, and not unfrequently nothing else was given from the day of the birth.

The addition of barley or oatmeal for the purpose of rendering milk digestible was not, however, absolutely indispensable, though he had learned to prefer them. For, gum-arabic and gelatine were also very valuable ingredients, indeed, of infant foods. Dr. Jacobi then dwelt at some length upon the changes which gum-arabic and gelatine undergo when put into the stomach.

CURATIVE TREATMENT.

The amount of food should not be larger than we had reason to expect could be easily digested. At all events, either lengthen the intervals between the meals or reduce the quantity of food given at one time, or both. When diarrhea made its appearance in infants who had been weaned, it was desirable to return them to the breast. Those who never had breast-milk might be given the breast if they could be induced to take it, but only rarely would that be found possible. Whenever a child at the breast was taken with diarrhea, the passages from the bowels should be studied as to their contents. If a certain amount of curd was found in them, the least that was to be done was to mix the breast-milk with barley-water. That might be done in such a manner that, each time before nursing, one or two teaspoonfuls of barley-water was given the child, so that the farinaceous food and breast-milk mixed in the stomach. Or, it might be found advisable to alterate breast-milk and barley-water. In bad cases, particularly when the milk was found to be white and heavy, and contained a great deal of casein, it would be found necessary to deprive the child *altogether* of its usual food. In such cases, the child would do better on barley-water alone (that to be continued for one or two days), than to expose it to the injury which would certainly follow the continuation of the casein food.

When diarrhea occurred in children who had been fed alone upon cow's milk, unmixed or mixed, it was necessary to reduce the quantity of cow's milk in the mixture. As a rule, we had to remember that cow's milk alone was apt to produce diarrhea, and it should be considered as a maxim that, whenever diarrhea made its appearance, the amount of cow's milk given to the child should be reduced. When a mere reduction of the quantity did not suffice, it was very much better to deprive the child of milk food altogether. Not infrequently the removal of milk from the bill of fare was the only thing which would restore the child to health. It was possible that a mixture, such as recommended by Dr. Rudisch, already mentioned, would be found digestible, even in such cases. In many cases, as a dietetic measure, it would be found advisable to add one or two tablespoonfuls of lime-water to each bottle of food with which the child was supplied.

In those cases in which barley-water did not seem to suffice as a nutriment, or where it would be dangerous to allow children to lose strength, a mixture which he had used to great advantage was the following: Mix the white of one egg with four or six ounces of barley-water, and add a small quantity of table salt and sugar, just sufficient to make the mixture palatable. The child could take this either in large or small quantities, according to the case.

In those cases in which the stomach was irritable and vomiting had occurred, it was now and then better to give a small quantity, even one or two teaspoonfuls, and repeat the dose every ten, fifteen, or twenty minutes, than to give larger quantities at longer intervals.

In those cases in which the strength of the child has suffered greatly, he recommended the addition of brandy to the mixture in such quantity that the child would take from one drachm to one ounce (grms. 4.0 to 30.0), more or less, in the course of twenty-four hours.

In those extreme cases in which the intestinal catarrh was complicated with gastric catarrh, where the passages were numerous and copious, and vomiting constant, where both medicines and food were rejected, there was frequently but one way to save the patients, and that was to deprive them *absolutely* of everything in the form of either drink or food or medicine. It was true that such babies would suffer greatly from thirst for an hour or two, but it was a fact that, after two or three hours, those children would look better than before the abstemious treatment was commenced. Not infrequently four or five hours of total abstinence would suffice to quiet the stomach and diminish both the secretion and the peristaltic movement of the intestinal tract. In some cases *six* or *eight* hours of complete abstinence would be required; or such children might be starved for even *twelve* or *sixteen* hours, with final good results. The first meals afterward must be quite small, and they would be retained, and, as a rule, such children would subsequently do well.

Dr. Jacobi here enforced the necessity of supplying the patient with as much cool fresh air as possible. The worst out-door air was better than close in-door air. If possible, the children should be sent immediately to the country and into the mountain air.

The second indication consisted in the removal of undigested masses retained in the intestinal tract. Not only in cases in which the diarrhea had resulted from previous errors in diet of the child, but also in those cases dependent upon sudden changes of temperature and exposure, it was desirable to empty the intestinal tract. For that purpose castor-oil, calcined magnesia, or calomel might be used.

Third. Nothing should be given that contained salts in any sort of concentration. Thus, beaf-tea should be avoided. It must be remembered that that form of meat-extract contained a very large amount of salts, and that the direct effect of those upon the intestinal canal might be productive of very unpleasant consequences. If the people insisted upon giving it, and there was no special contra-indication to its use in a given case, it should be administered only in connection with some well-cooked farinaceous vehicle, and the best of all for that purpose was barley-water; or it might be mixed with beaten white of egg, but no more chloride sodium should be added. For the main danger in beef-tea was the concentrated form in which its salts were given.

Fourth. Everything should be avoided that increased peristaltic motion. Thus, carbonic acid and ice internally.

Fifth. Avoid whatever threatened to increase the amount of acid in the stomach and intestinal tract. There was so much acid in the normal, and still more in the abnormal stomach and intestinal tract, that it was absolutely necessary to *neutralize* it. For that purpose it was safer to resort to preparations of calcium than of sodium or magnesium. So far as lime-water was concerned, its administration, certainly, was correct chemically. But we should not place too much reliance upon that popular remedy. We should not forget that it contained about one part of lime to eight hundred of water, and that it was necessary to swallow at least *two* ounces of the fluid in order to obtain a single grain of lime.

A further indication was, *the necessity of destroying ferments.* For that purpose most metallic preparations would do fair service. One which had been extensively used, was *calomel*, and now in *small doses* frequently repeated—$\frac{1}{10}$, $\frac{1}{4}$, or $\frac{1}{2}$ a grain [0.1 0.15 0.03] every *two* or *three* hours. As to its effect as an anti-fermentative, there could be no doubt.

Nitrate of silver, when given for the same purpose, should be *largely diluted.* From $\frac{1}{40}$ to $\frac{1}{16}$ of a grain [0.0015 0.004], dissolved in a teaspoonful or tablespoonful of water, might be given every *two* or *three* hours, and not infrequently with fair result. That was especially important with regard to injections of nitrate of silver into the rectum, where it was apt to do as much harm as good. Whenever it was to be given in that way, the solution should be mild and largely diluted, or the anus and its neighborhood should be washed with salt water before the injection was administered.

Bismuth acted very favorably. Moderate cases of diarrhea would usually show its effect very soon. Doses of from $\frac{1}{2}$ to 2 or 3 grains [0.03 0.20], given every *two* or *three* hours, would act very favorably indeed. In those cases in which the diarrhea had lasted for a long time, the doses of bismuth should be large in order to be certain of immediate contact of the drug with the sore surface.

A final indication was the depression of the hyperæsthesia of the general system and of the intestinal tract in particular. There had been authors who condemned the use of opium altogether, which, certainly, was incorrect. The doses should be *small*, and they might be repeated frequently. Administered in that manner, opium could be used with perfect safety both internally and in an enema. One of the rules for giving opium was that the child should not be waked up for the purpose of taking the medicine. Whenever there was fear of collapse, it was safer to give $\frac{1}{200}$ of a grain (0.0003) every half hour or hour, than to administer $\frac{1}{50}$ of a grain (0.0012) every two hours.

Alcohol.—Small and frequent doses would certainly stimulate the nervous system, digestion, and circulation, and they also stimulated the skin and increased perspiration. Alcohol, given in that manner, certainly, arrested fermentation. Moreover, it took the place of food, and acted favorably as food when no solid carbo-hydrates were tolerated by the intestinal tract. As it was absorbed in the stomach, so did it protect the intestinal tract.

Finally, it is necessary to reduce the amount of secretion taking place from the surface of the intestinal tract. For that purpose astringents might be used, such as alum, lead, tannic, acid, pernitrate of iron, and, what had already been spoken of, nitrate of silver. In all those cases in which the stomach participated in the process to any considerable extent, almost any astringent would prove ineffective. To fulfill several indications at the same time, it was often good practice to combine remedies.

The main indications were to neutralize acids, to reduce nervous irritability, to arrest secretion, and to change the condition of the surface of the catarrhal mucous membrane.

For that purpose, in the generality of cases, he combined bismuth, opium, and chalk, according to the following formula:

℞.	Bismuth subnit . . .	gr. i. (0.05)
	Prepared chalk . . .	grs. ij. (0.10–0.20)
	Dover's powder . . .	gr. $\frac{1}{3}$ (0.02)

That combination was suitable for a baby *ten* or *twelve* months of age, and the dose could be repeated every two hours. In all those cases in which acid was very abundant, it was necessary to increase the doses of antacids without necessarily giving large doses of opium.

Hot bathing was especially serviceable in those cases in which the surface was cool and the temperature of the body, measured in the rectum, was pretty high. To relieve intestinal pain, plain warm fomentations; to relieve heat, cold applications were sufficient.

Camphor stimulated the heart, and reduced temperature, and might be used internally or subcutaneously according to the necessities in the case. For subcutaneous injection it might be dissolved in either oil or alcohol. The effect derived from camphor as a stimulant was not permanent, but very much more so than that produced by carbonate of ammonia. The dose might be from ¼ to ½ a grain [0.015 0.03] every hour or two, when only a moderate stimulation was required. In urgent cases it might be given in doses of from *five* to *ten* grains in the course of an hour, and usually the effect would be favorable. It was, however, only in cases in which real collapse was present that doses of five or ten grains would be required.

There was no remedy that would act more favorably in conditions of great debility and collapse than *musk*. It might be given in doses of five or ten grains, and repeated every half hour or hour. More than two or three such doses would not be required to yield a result.

The paper being before the Society for discussion,

Dr. William H. Thomson remarked that, doubtless, each one of us had, by experience and reflection upon that experience, been led to the conclusion that in the course of years we became more or less a law to ourselves. He was very glad the opportunity had been afforded for some one to come in contact with his own ideas, and none more acceptably than the author of the paper, who was one of the most eminent authorities in his department in this county. In certain respects he disagreed with Dr. Jacobi, and was sure that he dreaded the beginning of dentition, as having a direct bearing upon the etiology of some of the more serious forms of summer diarrhea, which occasionally occurred with the suddenness and explosiveness of true cholera. The reflex effect from the irritation incident to dentition was to suspend the secretion of gastric juice, hence he had been led to administer bromide of potassium early in the treatment of infantile diarrhea, and, as he thought, with good results. He employed it as an agent that arrested reflex irritation. He had been led to believe there was a difference between the diarrhea due to local irritation, such as teething or fermentation of the contents of the intestines, and the diarrhea which seemed to be due to sudden nervous paralysis. The one he would regard as a catarrhal diarrhea, and the other as a true choleraic diarrhea. It had appeared to him that there was a difference between the two classes of cases from the very beginning. The manner in which the choleraic diarrhea began—without any evidence of distress accompanying or preceding the discharges, but the existence of large watery passages and their sudden development of grave cerebral symptoms—had led him to regard its access as very often due to an infection of a kind not dissimilar to Asiatic cholera. It was in the choleraic class of cases in which the effect of camphor seemed to be beneficial, and to be indicated from the very commencement. He always ordered camphor or some remedy allied to camphor in any case of diarrhea in which there is much looseness of the bowels without pain, and he directed special attention to that point, to be noticed by the attendants upon children in warm weather. Camphor, unquestionably, was a substance which was not dissimilar to carbolic acid, and the whole array of spices, which were antiseptics when taken internally. He relied very much upon them. The action of spices was very similar to the action of camphor, and in some cases peppermint and allspice were combined with small doses of camphor, preferably in those cases in which there was great irritability of the stomach.

Lastly, as to the question of the use of hot water for the purpose of restoring the circulation in cases of threatened collapse, he fully agreed with Dr. Jacobi in the employment of the agent for that purpose, for he used it with great success to overcome sudden and exceedingly dangerous contraction of the peripheral arteries. He used large hot-water injections, and ordered them to be given as freely as possible. He thought the hot water acted in two ways: 1. It aroused the patient; and 2. It allayed the peristaltic action of the intestines. For dysentery he gave but little medicine, but constantly washed out the lower bowel with hot-water injections. Finding it was equally well borne in the dysentery of children as adults, and allayed the irritability of chronic dysentery, he tried it also in cholera infantum, and strongly recommended its use.

The Society then adjourned.—*Medical Record.*

Diagnostic Differences Between Chancre and Chancroid.

BY PROF. T. G. RICHARDSON, M. D., NEW ORLEANS, LA.

Read before the Orleans Parish Medical Society.

Such is the conservatism of all truly philosophic investigators in medicine, as well as in other departments of scientific research, that notwithstanding the great advance made within the past century in the diagnosis, pathology and treatment of nearly all diseases, the influence of great names in the perpetuation of error is still strongly felt by all who propose a new departure. The justly renowned John Hunter, the acknowledged English authority, not only in surgery, but also in general pathology during the last quarter of the last, and nearly the first half of the present century, pronounced all venereal diseases to be dependent upon one and the same exciting cause. He proved to his own satisfaction, and that of the rest of the world, that gonorrhœa, soft chancre (or, as we now call it, chancroid) and syphilis were essentially identical, and the apparent differences resulting from their introduction into the human system were due to their mode of contagion, the tissues involved, and the peculiar state of the constitution of the patient. Strange as it may seem to us of the present day, this opinion prevailed to a large extent throughout England and this country until comparatively modern times, and resulted, as may be readily conceived, in plans of treatment as often disastrous to the patient as to the disease.

Scarcely had gonorrhœa been detached from this alliance, and proved to be a local inflammation, having a definite history and amenable to non-specific remedies, that it was hinted by French pathologists, that by pressing the wedge of investigation still farther another rupture might possibly be effected; that what was termed soft or simple chancre, might be separated from its only remaining associate, and each made to stand upon its own individual foundation. I need scarcely say that what was only a suggestion thirty or thirty-five years ago is now an accomplished fact; that chancroid (soft chancre) and syphilis are now recognized by the great majority of surgeons and pathologists as totally distinct affections, having separate histories, productive of entirely different effects upon the human system, and demanding for their relief modes of treatment almost diametrically opposed the one to the other. I do not mean to imply that this "dual doctrine," as it is sometimes called, though based upon rigid observation and experiment made in all the great centers of medical learning, has no opponents. On the contrary, the influence of the great men who are now passing away, and who have not abandoned the views which formerly prevailed, is still felt at the circumference of the profession, and will continue to exert itself until the text-books on medicine and surgery commonly recommended to medical students have been revised, or a new series introduced. Indeed, judging from what I almost daily hear from patients as to their previous treatment, I am warranted in the belief, that comparatively few general practitioners have had their attention particularly directed to the diseases in question, and are not therefore fully informed as to the true position which has been reached, and the great practical importance of the points which have been established. I would not have it thought that I am over-credulous of the stories which many patients indulge in with reference to their medical advisers (whom in nine cases out of ten, they have deserted without settling their just accounts); but when I ascertain, either by examination or questioning, that in a case of ulcer upon the genital organs, mercurial remedies have been employed steadily for a longer or shorter time with the view to ptyalism, I can not be mistaken as to the pathological ideas held by the prescriber, and am therefore entitled to draw my own private inference as to his acquirements and practical sense. As the matter now stands, I do not hesitate to declare that the physician who undertakes to treat these diseases without a clear understanding of their radical pathological and therapeutical differences is criminally responsible for the sad mistakes he is sure to make.

Asking your pardon for these prefatory remarks, I now proceed to the consideration of the special question selected for discussion this evening, which I understand to be the ethiological, clinical and pathological resemblances and differences between chancroid and the initiatory stage of syphilis known as chancre. For the purpose of bringing the subject clearly and concisely before the Society, I shall present it in the form of a series of dogmatic statements, with the hope that these may be freely criticised by all whose observations and deductions differ in any manner from my own.

I. Points of Resemblance in Chancroid and Acquired Syphilis.

1. Both are infectious diseases, the result of local contagion, and present themselves primarily as sores which secrete a poison similar to that by which they have been produced.

2. The primary sores occur only at such points where the virus has been brought into contact with the subcuticular layer of the skin or mucous membrane.

3. Both are most commonly propagated by sexual intercourse; hence the greater frequency of the primary sores upon the genital organs. Any portion of the cutaneous or mucous surfaces may, however, become the seat of either of the two diseases when the conditions mentioned in the preceding proposition exist, as is sometimes witnessed in the case of dressers and surgeons who become accidentally inoculated in the performance of their duties by means of minute sores, abrasions, or wounds upon their fingers.

4. In both affections the primary ulcers are liable to assume different phases of action, such as the phagadenic, serpiginous and gangrenous.

In these four particulars the two diseases often present a very strong likeness, which, for the moment, may occasionally lead even a very skillful surgeon to reserve his diagnosis. The distinctions, however, a brief synopsis of which I will now present, are usually sufficiently well marked to justify an early if not an immediate decision.

II. Points of Distinction Between Chancroid and Acquired Syphilis.

1. *a.* In chancroid there is scarcely an appreciable period of incubation. When the virus has been brought into contact with a cutaneous or mucous surface from which the cuticle has been removed, within a very few hours thereafter a running sore is produced whose secretion possesses the same infectious quality as that from which the inoculated poison was derived. The rapidity of the effect is somewhat moderated when the virus has been inserted beneath the cuticle by means of a lancet or other sharp-pointed instrument, or has become impris-

oned in like manner by a slight rupture of the cuticle which closed immediately, as often occurs in coition. In such cases a small papule is developed within twenty-four or forty-eight hours, which soon becomes a pustule, terminating in a day or two in a defined suppurating sore.

b. Syphilitic, like vaccine virus, produces no apparent effect for several days after contact, and the primary sore (to which the name *chancre* should be strictly limited) does not ordinarily attain its full development in less than three and sometimes in less than four weeks. This fact has been conclusively proven, not only by clinical experience but by experimental inoculation.

2. *a.* Chancroid, in its formation and progress, is nearly always accompanied by heat, pain, redness, and swelling. It thus declares its presence unmistakably to the patient, and compels him to seek relief.

b. Chancre is seldom attended by any inflammatory symptoms, and sometimes reaches its maturity without having attracted the attention of its victim.

3. *a.* Chancroid is very commonly multiple, the sores numbering from two to as many as six or eight. The multiplicity may result from as many consentaneous inoculations, but more likely from rapid propagation from one or two original sores. In the latter case the abrasion of the cuticle necessary to effect the result is usually produced by the inflammation excited in the surrounding parts by constant contact with the irritating purulent secretion, and also not rarely by scratching and frictions on the part of the patient.

b. Chancre is nearly always single, and seldom or never duplicates itself by subsequent contamination of the adjacent surfaces. When double, as has been occasionally observed, inoculation of the two points must have occurred simultaneously, or within two or three days of each other.

4. *a.* The virus of chancroid, as may be inferred from what has been just stated, is auto-inoculable. The purulent secretion furnished by the sore during its active stage and up to within a very short time of its complete cicatrization is capable, either by accidental or experimental inoculation, of producing any number of similar sores in the same individual.

b. The secretion of chancre, when brought into contact with an abraded surface, or introduced beneath the cuticle of the individual in whom the primary sore exists.

produces either no effect or else a very greatly modified sore, possessing no power of infection so far as has been ascertained.

5. *a.* Chancroid varies in size from a line to an inch or more in diameter, has usually clearly defined edges, a surrounding inflammatory areola, and a slightly depressed angry-looking surface. Its secretion is abundant and purulent, varying in its consistency, but often presenting the physical qualities of laudable pus. It is essentially a *wet* sore, and the adjacent surface for a considerable distance is kept continually bathed in the foul discharge.

b. The ulcerated surface of chancre is not often larger than three or four lines in diameter, but is frequently smaller, has sloping edges, no inflammatory areola, and except when irritated by injury or other accidental cause, or by the application of stimulating substances, or unless phagadenic in its character, furnishes a very meager amount of sero-purulent secretion. It is, comparatively, a *dry* sore; but the secretion, slight as it is, is capable of doing an amount of damage that is truly appalling.

6. *a.* Chancroid is usually superficial, and unaccompanied by decided thickening or hardening of the surrounding or subjacent tissues. Hence it was formerly and is still called by some writers *soft chancre*. This characteristic is, however, frequently lost by the application of escharotics.

b. Chancre is generally distinguished by a remarkable thickening and induration of the tissues beneath and around the ulcerated surface. This may be easily determined by lightly grasping the parts between the finger and the thumb, when the sensation imparted will be like that of a disc of india-rubber beneath the skin or mucous membrane. At other times, however, the circumferential hardening is not well marked, although it is probably never altogether absent. This difference in degree should always be borne in mind in making a diagnosis, and the value of the system as a characteristic estimated accordingly.

7. *a.* Chancroid nearly always shows a tendency to spread, and sometimes attains to a very large size in a few days.

b. Chancre is indolent and frequently remains unchanged in dimension or otherwise for several weeks.

8. *a.* Chancroid is frequently productive of bubo, but this is not a necessary result, and should be looked upon

rather in the light of an accident. When present, it is ordinarily limited to the lymphatic gangliæ nearest the sore, but the inflammation may spread to other ganglia upon the route of the lymphatic vessels leading from the spot, and thus give rise to a poly-ganglionic swelling. The bubo of chancroid is commonly accompanied by acute inflammation, which results in the formation of a collection of puss possessing the same infectious quality as that of the original ulcer. In such cases the virus seems to be carried from the chancroid by the lymphatic vessels and lodged in the *rete* of ganglion, where it excites suppurative action. In other instances where suppuration does not take place, the probability is that the swelling is due to a simple extension of the inflammation along the lymphatic vessels, as is often observed in connection with non-specific ulcerations.

b. In chancre there is always enlargement of a number of the adjacent lymphatic ganglia, unaccompanied by pain or other marked symptoms of acute inflammation, and possessing little or no tendency to suppurate. When the primary sore is seated upon the genital organs all the ganglia of the upper inguinal group upon each side are usually affected. Suppuration occasionally occurs in consequence of external injury or of a depraved state of the system, but this is rare.

9. *a.* Chancroid is not succeeded by discolorations of and eruptions upon the skin and mucous membranes, ulcerations of the throat, falling of the hair, specific inflammations of the deeper tissues or other symptoms of constitutional infection.

b. Chancre when left to itself is invariably followed by cutaneous and mucous eruptions, ulcerations in different parts of the body, deep seated inflammation, morbid deposits in various tissues and organs, and numerous other effects which characterize it as one of the most penetrating and dreadful constitutional diseases to which the human body is liable. Superadded to the power of producing these dreadful consequences in its original victim, it possesses the quality of heredity in a marked degree, and thus the sins of the parent are visited upon the children throughout several generations.

10. *a.* As chancroid is not a constitutional disease it is in no degree protective. On the contrary it may repeat

itself an indefinite number of times in the same individual when the latter is exposed to the exciting cause.

b. Chancre is as strictly constitutional as the vaccine pustule, and like the latter so modifies the system that no new infection possessing the true characteristics like the original can be produced.

11. *a.* Chancroid is not arrested or moderated, but often powerfully aided in its destructive action by mercurialization or iodism.

b. Chancre is frequently cured and its secondary results prevented by the judicious administration of mercury. When the infection has reached the secondary and tertiary stages mercury and iodine *when properly employed* are truly antidotal.

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Anatomical Evidences of Abortion.

BY MEDICAL EXAMINER C. C. TOWER, M. D.

At the autopsy of a woman supposed to have come to her death in consequence of a recent abortion, at a period from the third to the sixth month of pregnancy, an examination of the corpus luteum, if discovered, should be made in reference to the following anatomical and diagnostic signs: (1) location; (2) size; (3) texture; (4) glandular wall; (5) clot; (6) enucleation.

(1.) The location in the ovary should be superficial, as indicated by a prominence on the surface of that organ, and by the existence of a minute opening or cicatrix which marks the point of rupture of the Graafian follicle whence the corpus luteum originated. If the structure is deep seated, and unconnected with a depression or scar on the ovarian surface, it is not to be considered as an evidence of pregnancy, but should be regarded as the result of gelatinous fibrinous, or saccular degeneration of an unruptured Graafian follicle—a so-called "false corpus luteum."

(2.) Unless defective in development, on account of local or general deficiency of organization or vigor, or on account of retrograde changes which took place between the events of abortion or death, we should expect the corpus luteum at this middle period of pregnancy to measure in its length from ten to twenty-five millemeters, in its weight from five hundred to fifteen hundred milligrammes, and in its volume from one-half to one cubic centimeter. Normally retrograde corpora lutea of menstruation usually fall short of these measurements.

(3.) The texture of the corpus luteum of pregnancy is usually quite firm, sometimes almost cartilaginous in consistency, especially the clot, while that of corpora lutea unconnected with pregnancy is soft or only moderately firm, and, after the first month, even friable.

(4.) The wall of the corpus luteum when followed by impregnation is a more distinctly bright orange-yellow color, thicker, and more deeply convoluted than when conception has not taken place. The yellow color which then obtains is often described as rosy yellow, light yellow, yellowish-white, an indefinite yellow hue, and the convolutions are less deep and thick according as the occurrence of menstruation has been recent.

(5.) The clot of the corpus luteum is one of its most distinctive features. During its development in pregnancy it becomes more and more discolored and firm in texture, and toward the end of the term puckered and scar-like. In about one-third of the cases it is found to contain a central cavity devoid of lining membrane. This characteristic may be regarded as almost certainly diagnostic of recent pregnancy. In the non-pregnant state, however, the color, which during the first month is red, changes to greenish, brownish or whitish, only when the retrograde process has become well established—when its size has begun to diminish and its consistence to soften.

(6.) Enucleation is one of the properties which pertain to corpora lutea. Not only in the well-developed structure can the clot be removed from its enveloping wall, but also the whole body can be readily separated from the stroma of the ovary by a sort of natural cleavage. This characteristic of the corpus luteum belongs alike to that of pregnancy and that of menstruation during the developmental periods. This difference, however, obtains: that when the latter has undergone an early stage of retrocession, or become obsolete, its separation of parts or its entire separation from the ovary is difficult, if not impossible, without rupture; whereas the corpus luteum of pregnancy can be at all times enucleated from its bed in the ovary, and, as a rule, the clot can be removed from its capsular integument.

In regard to the medico-legal value of a well-marked corpus luteum of pregnancy as an evidence of abortion, it seems to me there can be no doubt. As much weight should be attached to its existence as to that of any other single sign, unless, perhaps, the mark of the utero-placental union. It sometimes, however, happens, as in the case already referred to, of Dr. Chenoweth, that on account of instrumental violence at the hands of an abortionist, followed by inflammatory softening of the uterine wall at the seat of injury, complete obliteration of the placental site occurs, thus destroying any evidence to be derived from this source. In this case when the uterus "was first held up there appeared to be three ragged rents on the front part close together, looking like a torn carpet, with the shreds reaching across the rents." "After having been slightly touched with a sponge the rents in the uterus disappeared, leaving a large excavation." "I do not doubt," he says, "that the placenta occupied the site of the rents." In other instances, as when due to the lapse of a considerable interval of time between the abortion and death, all traces of the seat of this organ have been removed by absorption or exfoliation.

Although some writers on medical jurisprudence are inclined to attach small importance to the existence of a corpus luteum as a proof of recent abortion, yet I think I may say the latest and best informed on this subject generally regard it as of very considerable value. Evidently the weight given to this sign depends very much upon the care with which the examining physician conducts his examination, and upon his ability to interpret correctly the appearances which he discovers. There is reason to believe that most of the reported cases of so-called "true corpora lutea" in virgins, and their absence in women after delivery, are attributable either to a want of discrimination between the yellow body when dependent upon ovulation alone and that dependent upon ovulation followed by conception, or to an inability to recognize that structure when imperfectly developed from any cause, or when deteriorated by changes which have taken place in it after abortion occurred. Attention to the points detailed above, it is believed, will seldom mislead the careful observer. It is to be hoped that medical examiners will give this subject careful attention, and report their results to the society, in order that a more thorough knowledge of all the important phases and appearances of this organism may be more thoroughly understood.

The following conclusions arrived at by Ogston tally well with what I have derived from other sources:

(1.) "That a small, imperfectly developed corpus luteum affords no proof of impregnation having taken place.

(2.) "That in proportion as the corpus luteum approaches its full size and development, so does the proof of impregnation followed by a somewhat advanced pregnancy approach to anything like certainty.

(3.) "That the absence of a corpus luteum from the ovary would not be sufficient to negative the possibility, at least, of impregnation having taken place.

(4.) "That the differences in which the distinction between spurious and true corpora lutea is based do not refer to separate bodies so much as to different states of the same body."

The following case, copied from Professor Dalton's report, already borrowed from, illustrates so well many points which have been described that I make no apology for its introduction here:

"Case XXIII. A colored woman, twenty-five years of age, rather below the medium height, but strong and well developed, died in New York, April 7, 1877. She had had an abortion, without medical attendance, nine days before, and attempted to conceal the fact until she became ill, several days afterward, and was seen by a physician. She reported to him that she had been not more than two months advanced in pregnancy. From her appearance, as observed by her friends, the pregnancy might have been as early as this, but could not be as late as six months. From the condition of the uterus, as seen at the autopsy, it should probably be reckoned at three months. Death resulted from general peritonitis.

"The uterus was enlarged to more than five times its natural size; weighing, when stripped of all accessory parts, two hundred and seventy-four grammes, its walls being thickened in proportion. The mucous membrane of the cervix remained entire. That of the body was wanting throughout; and at the upper part of the posterior uterine wall, the former attachment of the placenta was indicated by a ragged, brownish prominence, forty to fifty millimeters in diameter and three to five millimetres in thickness.

"The situation of the corpus luteum, in the right ovary, was distinguishable externally by a roundish, superficial cicatrix-like spot surrounded by an indistinct yellowish zone. The corpus luteum, immediately beneath, was fifteen millimeters wide, ten millimeters deep, and five millimeters thick. Its outer wall was of a clear, orange-yellow color, quite thin in its superficial portions, one millimeter thick elsewhere, but often increased by its foldings to a thickness of two millimeters. The central clot was of firm consistency, uniformily decolorized, and white for the greater part of its extent. Immediately beneath the superficial cicatrix it presented some dark bloody discoloration, apparently due to the inflammatory congestion of the ovarian integument, which was strongly marked. In the center of the fibrinous coagulum was an oval excavation of flattened form, without any separate lining membrane. The whole corpus luteum was easily enucleated. Its volume was 0.9 cubic centimeter, and its weight 1,015 milligrammes.

"The left ovary, which was smaller than the right, contained nothing unusual. In each organ there were a number of Graafian follicles, from one to three millimetres in diameter, beneath the albuginea. There were none of larger size, and none prominent on the surface."

Although it would be in all fatal cases extremely desirable, and in most of such cases quite possible, to decide upon the occurrence of recent abortion by strictly post-mortem appearances, yet, fortunately, medical examiners are seldom compelled to rely entirely upon such proof. They are required by law to make "personal inquiry into the cause and manner of the death." It rarely happens that circumstantial evidence, or that obtained from a history of the case as given by trustworthy parties acquainted with the woman when living, or that derived from the general reputation of the woman, is not available for medico-legal purposes. It is obvious that in case of death following abortion, an opinion based upon medical examination should not be dependent upon any single sign, but rather upon the co-existence of several of them. While a distinct placental mark existing in a uterus considerably enlarged might in itself be sufficient indication to satisfy the examiner of the fact of recent delivery, yet if to this testimony could be superadded that arising from the existence of a well-developed corpus luteum, no further proof, it seems to me, should be required to satisfy any legal tribunal.

It only remains to allude to the evidences of abortion at a remote period. This can seldom be diagnosticated by physical signs alone. After delivery at the full time the normal process of involution is completed in about one month. Although, as we have seen, the uterus under these circumstances does not wholly return to its original condition, and can be recognized as having been pregnant, yet after an abortion in the early or middle periods the differences in this respect would be hardly perceptible. If death followed criminal abortion after a month's time or more, in consequence of inflammation which was thereby set up, this "inflammation might or might not be attributed to this source."* When peritonitis is the result of violence it is, according to the authority of Woodman and Tidy, "generally more localized than when it is spontaneous in puerperal cases." The forms of inflammation which are most likely to ensue are metritis, phlebitis, pelvic peritonitis, and pelvic cellulitis. The original lesion is generally endometritis, which probably results in many cases from some injury inflicted upon the womb by the abortionist, or from want of proper care after the abortion occurred. "We have reason for believing," says Fordyce Barker, "that puerperal metritis is frequently the primary lesion in many cases of general or local peritonitis, and in many of the suppurative inflammations of the other pelvic tissues."

The following case, which came under my observation ten years since, is an instance in point: E B., aged twenty, unmarried, underwent two "operations" at the hands of an abortionist. No pain attended the first attempt, which was a failure. At the second, about a week after the first, "she was "hurt dreadfully," as she subsequently stated. Immediately before and after each operation she walked a distance of two or three miles. Expulsion shortly followed the second manipulation. No physician was in attendance. She was said to have suffered severely, but apparently made a good recovery. At the end of a month she was removed to the residence of a near relative, some three miles distant, being conveyed in a carriage. From this time up to that of her death she underwent two transportations from place to place during cold winter weather, and is further believed to have suffered many hardships from neglect and abuse. It is known that for more than two months before the fatal event occurred there was a purulent discharge from the rectum, with emaciation, hectic, and general prostration. Death occurred four months after the abortion.

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* Ogston.

At the autopsy there was found in Douglas's pouch a purulent cavity four or five centimeters in diameter, with rigid walls formed by adhesions of the pelvic peritoneal tissues, and connected with the rectum by a fistulous opening some seven millimeters in diameter. The uterus was healthy to appearance, and being submitted to Professor J. B. S. Jackson, he could detect no positive trace of primary lesion, although there was an appearance which might have been the result of a puncture. No evidence of disease was found in other organs.

Before death the young woman made a dying statement, which was duly sworn to. The abortionist, who was a woman, was prosecuted, tried, convicted, and sentenced to eighteen months' imprisonment in the house of correction. After serving seven months and twenty-four days of her sentence she was pardoned by the Governor.

Some (so-called) Hysterical Cases.

By B. F. Buckley, B. A., M. D., San Francisco.

In reading over several of the standard works on practical medicine and surgery, as well as the numerous special treatises and periodicals, it seems like a waste of energy on the part of the writer and an infliction to the reader to add anything to the extensive literature of "Hysteria." Yet, as some cases of exceedingly great interest have occurred in my own practice, it may not, I trust, be out of place to record a few.

Case 1.—In the spring of 1873 I was called in consultation by a then prominent member of the board of health, to see a young lady of German parentage, living on Fourth street, near Brannan. On the occasion of my visit, about 9 P. M., the patient, a young, robust looking girl of about twenty, was lying at full length upon her back, breathing very quickly, with a pulse of 110 on to 120, left side of the face pretty well contracted, and the general appearance of apoplectic coma. I learned that she was a person of generally grave and sedate habits; that her menstrual secretion was normal; that her health was generally good; that she never had a fit or spasm of any kind up to the present; and furthermore, *that she had not spoken or tasted any form of nourishment in three days.*

I observed that the temperature of the body was normal and the skin moist: that the pupils were normal and responded equally to the influence of light; in moving the limbs, both seemed more rigid than natural, but this rigidity did not appear to be uniform on repeated examiaations. On trying to induce her to take a little water from a spoon, I noticed that the repelling of it was not of that tremulous, unconscious character so marked in grave organic or toxemic brain disturbances, but was accompanied by a rather distinct and decided closure of the lips, indicating to my mind a conscious effort of volition.

Regarding the quickened respiration as voluntary also, and the increased pulse rate as a consequence of protracted effort in this direction, I indicated to my confrere my views of the case, viz: that it was of a hysterical character, in which he readily acquiesced. He accordingly asked me to do what I thought proper in the matter; and having agreed to try the effects of some strong coffee, it was ordered. When this was ready, I took a position near the patient's head, and in a very peremptory manner ordered her to sit up and take some. This command appeared to be quite unheeded, until a large wet towel was freely, and by no means mildly, dashed on the face; when she, who had neither spoken nor moved for three full days, sat up in bed, looked around, recognized my confrere, called him by name, took her coffee, held a brief conversation with more than one of her family, and continued well thereafter.

CASE 2.—In the following June, yielding to several pressing errands and entreaties during my office-hours, I called hastily to see a woman reported to be dying, on Jessie street, near Fourth. The patient appeared about the age of forty-five, of a stout, plethoric habit, and lay in bed in the prostrate condition of one in the advanced stages of typhoid. Hitherto her health had been invariably good until the outset of the present attack, some ten days ago, which at first seemed a mere dullness and want of energy, but for the past two days assumed a more serious aspect, inasmuch as during this time she had not recognized any of her children or friends, merely muttered a little occasionally, and took no nourishment or drink whatever save a little water a few times. Learning that the gentleman previously in attendance had last night expressed a most unfavorable opinion regarding the case, that he had not visited her to-day, and had left town for the day, I thought it my duty to investigate the matter. I observed that some *heroic* treatment had evidently been resorted to, for it is no exaggeration to say that all the anterior half of her body, from the pubis to the clavicles, had been either cupped, or blistered, or both, which sorely embarrassed me as to the indications for such a treatment, and the object to be attained.

Having carefully examined all the conditions dwelt on in Case 1, and having directed further attention to the condition of the kidneys lest some uremia might possibly escape notice, I finally decided to test the efficacy of valerian and ammonia in mixture, without being at all satisfied as to the exact nature of the malady. The mixture, like everything else offered, was utterly rejected until the occasion of a second visit, some three hours later. At this time I informed the many sympathizing friends around, without any apparent doubt in my mind (though by no means as sanguine as I seemed), that "this woman could sit up and take any nourishment she wanted just as well as I could." At this remark of mine I thought I observed a hasty flash of displeasure pass over her hitherto impassive features. Feeling more confident in the correctness of my views from this circumstance, I accordingly presented to her quite a full dose of the compound previously ordered, proclaiming at the same time, with much apparent anger and determination, that "it must be taken." Scarcely less to my own astonishment than to that of the numerous friends around, the lady, without further ado, raised herself to a sitting posture, took the glass out of my hand, swallowed its contents, and laid down again laughing immoderately, to all appearance at the deception she had been practicing. Shortly after she took a substantial amount of nutriment, and continued quite free from relapses into her singular condition.

CASE 3.—A young lady, Miss C., came under my notice in August, 1877. She was reduced to a mere skeleton from persistent vomiting. Complained of sharp pain constant in the epigastrium, and an intolerable pain in the right side of head, extending over half the cranium. She had not been out of bed for three months, and, according to the family, had been pronounced hopelessly ill with cancer of the stomach by several physicians. Menstrual function had been for about a year quite irregular. On my first visit she lay "doubled up" in bed, with the face resting on her knees, and so supported by pillows. The pupils were widely dilated, and the intellect, from her answers, seemed to be quite dormant. After due examination I concluded there was no cancer or other organic disease of the stomach, but fully believed that some organic disease of the brain (most probably tumor) was present. To this I attributed the persistent vomiting, which certainly was the most singular form of emesis I ever witnessed, for even a little water, taken no matter how frequently, seemed to have scarcely reached the stomach before it returned with violence, almost with the appearance of pure bile. I was assured this was the case with everything she had taken for the greater part of the time she had been confined to bed, but this I regarded as a sort of "poetic license," as something must have been retained to sustain vitality. Owing to this one symptom I ordered the patient to be fed exclusively by nourishing enemata; I also ordered suppositories of quin. bromid. gr. vi, and sulph. morphiæ, gr. ½ to be used night and morning. After three days of this treatment, I had the satisfaction of learning from the patient herself that her head was much better. Observing that her intellect seemed more active than I could account for by any of the measures adopted in that short time, I asked her if she could sit upon a lounge for a little while. She answered in the affirmative, and in trying to do so staggered around the floor. This I saw was due to sheer weakness, and encouraged her to try again, at the same time assuring her that a little sherry and water would help her to gain strength to do just as she pleased. Accordingly she took a little, while I engaged her attention at some object in the room. I so remained talking with her for about half an hour, and to my great pleasure did not see the sherry reappear in the form of bile. I then ordered a pill of monobromate of camphor, 3 grs., to be taken at bed-time. This, as I learned next morning, was also retained, and a refreshing sleep ensued. Some time was again spent on the lounge to-day also, and a fair quantity of nourishing diet was taken without any rejection. The next day, feeling now convinced I had to deal merely with a morbid will-power, I recommended early rising and the occupation of brushing around and general domestic industry. This had the desired effect completely, for after three weeks of it the patient called at my office and had grown so stout I failed to recognize her.

Note to Case 3.—It seems to be a prevalent opinion among writers on this malady, that even with persistent vomiting the patient continues to keep in the ordinary condition of flesh; and even so experienced and able a writer as Dr. Wilks, of Guy's Hospital, in his recent work published in 1878 under the heading, "*Anorexia (Hysterical)*," commences: "It is a remarkable circumstance that in hysterical vomiting the patient does not grow thin, showing that the small portion of food which is retained is assimilated by the healthy organs." This is certainly diametrically opposed to my individual observation, for of many subjects in whom vomiting was a leading symptom of the disease, I have not yet seen one whose appearance did not show a degree of emaciation more or less corresponding with the persistence of this symptom.

Case 4.—A child of ten years lies in bed with the right leg drawn up; says she has pain in knee and hip-joints; seems a healthy, well developed child; and, according to parents, had been very fond of play until ten days ago (March 20, 1879), when she complained of the leg, and they belived that she had in some way hurt herself. Hip disease had been suspected by the gentlemen who had first seen the child, and hence the parents desired me to treat it. I found the temperature of knee and hip-joints of the affected leg the same as the other. In striving to move the leg a little, the hip-joint showed no motion; on the contrary, the spinal column moves with the motion of the leg. The flexion of the leg, however, was not that generally accompanying hip disease, for the heel was drawn up almost to the nates. The child spoke little, looked quite grave, and seemed to suffer little or no constitutional distress. I informed the parents that there was no disease of the hip-joint, but a serious trouble of the spine, believing the case to be one of "progressive infantile paralysis," more especially as the child had a severe attack of diphtheria within a year, and I treated it accordingly, using bromides more particularly. On my visit next day, twenty-first, I learned also that the child had also lost her speech, not having spoken for twelve hours, and this while it might seem of itself to confirm my original opinion, had the very opposite effect, for the reason that there was no paralytic affection of the left leg, none of the right arm, none of the muscles of deglutition, the appetite remaining unaltered, and no grave constitutional distress.

Not wishing to be precipitate in my judgment, I ordered the child's spine to be well rubbed with a mixture of camphor and chloroform liniment every three hours, while awake. The following afternoon I find that she had recovered the power of speech, but the leg is nowise altered. Then with a view of testing a strong suspicion, I pulled down the bed-clothes and in a very positive tone told the child to "straighten out that leg." She looked at me quite vacantly, but took no heed of my injunction. After this I opened a pocket bistouri and told her if she did not straighten her leg I should have to cut off part of it. Still not the slightest effort at moving, until with the fine point of the bistouri closely held, I gave her one or two pricks of it in quick succession, when she jumped out of bed and ran around to her brother for protection, very much to the stupefaction of both parents who witnessed the performance. After this there was no more lameness, and the well-being continues to the time of this writing.

CASE 5.—Mrs. H., a lady of forty-seven, whose menstruation has been of late irregular (due, no doubt, to "change of life"), and has suffered great mental depression for the past year through the death of a son of twenty years old, to whom she was deeply attached. She consults her physician, Dr. Maxwell, in the early part of April of this year, relative to some uterine difficulty, and he finds it necessary to remove a small superficial tumor, not bigger than a pea, from the external os uteri. This operation is accompanied by severe hemorrhage, necessitating much time and effort to control it. A few days pass over, and all difficulty from this source is apparently ended. Again, on the fifteenth, ten days after this trivial operation, Dr Maxwell is sent for, and finds her complaining of pain under the angles of both jaws. Says she has difficulty in swallowing, but without any apparent distress of any kind. Nutrition and sedatives are plied abundantly, more especially the former, and no material change is apparent until the twentieth, when she becomes less manageable in taking nourishment, and Dr. Maxwell calls me to aid him. The nature of the disease, having regard to the operative interference previously, was discussed, and the idea of tetanus was dismissed for the following reasons: There was no progressiveness; there was no pain in the muscles round the neck; there was *none* of the profuse perspiration so common in tetanus; there was occasional ability to take nourishment, more particularly when fewer people were around, and evidently no desire to be understood, no painful effort at utterance. Sleep was irregular but sufficient. Accordingly we made the experiment of suggestion, a very beneficial one in diagnosing hysteria.

We talked over her malady in her presence, and suggested that she should have some pain in the left iliac region. Next day she complained of a severe pain in this part. We then thought (aloud) she may have a pain in the left knee, and next day so she had. Thus she went on for ten days, persistently refusing nourishment in our presence, but occasionally taking a little when we were absent. On the twenty-first, Dr. Lane was called to see her, and gave his opinion as tetanus, which, I believe was modified at subsequent visits on learning that she had taken small quantities of nourishment on the sly, and got out of bed for the purpose. As the treatment agreed on by all was mainly an enforcement of her taking nourishment in sufficient quantity, as well as sedatives to induce rest, I was called on the night of the twenty-fourth (2 A.M.) to carry out our injunctions, as she had declined to do anything for the nurse or relatives.

In order to execute our desires, I brought a stomach pump, and as she refused to do my bidding I proceeded to use the gag and screw, when she commenced to relent, begged me to leave her alone, and she would take what I wished. She accordingly took a cup of chicken soup slowly, and afterward a full dose of chloral, as agreed upon. Next morning, twenty-fifth, Dr. Lane was not present. Dr. Maxwell, on learning my experience during the night, readily assented to our repeating the same proceeding this morning, as she now seemed more than ever determined to resist our wishes. After all our persuasive efforts and those of her friends proved unavailing, and fully alive to the idea that she could not endure many days longer with the gradually decreasing amount of aliment taken, we placed her in an arm-chair—she sat up at intervals during the entire illness—and again tried to induce her to take nourishment, but to no purpose. We then determined to use the pump, and with the aid of the nurse and her brother screwed her mouth open sufficiently to apply the gag; after this was in place, and before we could get the stomach tube back to the fauces, Dr. Maxwell, who was observing her pulse cautiously, told me to desist; that the poor lady was dead. How to account for the sudden death may admit of a variety of hypotheses, but to our minds then and there it seemed to be due to the effort of a powerfully morbid will completely suspending respiration in the desire to resist what was not agreeable to the diseased imagination, which, of course, would be aided by the dreadful exhaustions into which the patient had by this time lapsed.

Philadelphia County Medical Society.

At a conversational meeting held at the hall of the College of Physicians, Philadelphia, April 23, 1879, Dr. Henry H. Smith, President of the Society, in the chair, Dr. Albert H. Smith read a paper on "The Hot Douche in Parturition," more particularly in controlling hemorrhage and producing uterine contractions.

The President, Dr. Henry H. Smith, in introducing the subject, spoke of its interest, and quoted two cases in his own practice, one of abortion at the end of the third month, and the other, one of ordinary menorrhagia, where the obstinate bleeding was checked by hot-water injections. He suggested that the rationale of its operation was largely that of constringing the tissues, as in the familiar illustration of the washerwoman's finger. He believed that it would also be useful in ordinary capillary oozing after surgical operations; and in conversation with Prof. Da Costa, he had considered its use as a gargle in hæmoptysis, where it would doubtless act as well as common salt, having the same effect on the terminations of the pneumogastric nerve, and tend to check respiration and allow time for the blood to coagulate.

Dr. O'Hara had used the hot water successfully in a case of menorrhagia after ordinary styptics had failed. He had also used it in bleeding piles, injected as hot as could be borne into the rectum twice daily, and had been surprised at the relief it afforded.

Dr. R. J. Levis said that if heat and not moisture was the active agent in checking the hemorrhage, he would ask the lecturer whether dry heat, such as hot bottle, or something of this kind, introduced into the uterus, would be equally effective.

Dr. Charles B. Nancrede, in regard to the use of hot water as a hæmostatic in general oozing, stated that Dr. Charles T. Hunter had recently employed it after amputation to check capillary oozing, with marked success. He had also used it as a gargle for hoarseness after singing, with decided relief.

Dr. John B. Roberts said that hot water had been in use for some time in London, by Mr. Bryant, for the purpose of arresting hemorrhage after operations, and with good results.

Dr. S. D. Risley called attention to the use of hot water in painful affections of the ear, such as furuncle or abscess, where hot injections afford marked relief; dry heat being much less effective.

Dr. W. T. Taylor has always considered hot water as a relaxing agent to the tissues. Nurses used to be in the habit of giving the parturient woman a hot foot-bath and steam-bath, to relax the uterus in tedious labor. He had always relied upon cold applications and the use of the hand to produce contractions of the uterine fibers, which had thus far proved successful.

Dr. J. C. Wilson said that, in considering the rationale of the action of the hot water, there had been mentioned in the discussion three points that seemed to bear directly upon its explanation: first, the use of the hot douche as quite effectually controlling uterine hemorrhage, and leading to muscular contraction; secondly, the fact that when a surface is deeply contused and purple with congestion, the hot water will revivify and redden the part, as in the instance of the perineum given by the lecturer; and, thirdly, the shriveling of the washerwoman's fingers. These seem to suggest that the rationale of the difference between the effects of hot water and that simply warm is, that the former is a decided stimulant, which the latter is not. Looking upon it as a stimulant we can understand its revivifying effect upon the tissues, and upon the capillaries, the shriveling of the finger being caused by the contraction of the pulp beneath. The advantage of hot water over cold applications is, that the depressing effects of the latter are avoided. It would seem in the discussion that some of the gentlemen had confused the results of the hot douche with those of simply warm injections.

Dr. Riseley, in reply to a question, stated that the proper temperature for injection in a case of ear-ache would be about 115°, and believed that under 100° would rather aggravate the trouble.

Dr. Levis observed that from actual experiment, made some time since, he had found that the face could be immersed in water of the temperature of 118°. The test was made in consequence of a statement of Von Graefe's, that the retina might be depleted by dipping the face in hot water for a few moments. He believed that the face could bear a higher degree of heat than the hands, and probably the vagina and uterus still higher.

Dr. W. R. D. Blackwood referred to two cases of uterine hemorrhage--one post-partum aud the other menorrhagic--which had yielded promptly to hot-water injections. He had very poor results from ice, and believed that Dr. Taylor's success should be attributed to the manipulation rather than to the cold applications. In one of his cases, after the ice had failed he had used the hot douche, and never saw anything act more charmingly and more promptly than these injections; the uterus contracted at once and remained so; there was almost no discharge afterward. In regard to Dr. Nancrede's statement as to the use of hot water for hoarseness, it was a common expedient among actors, and he knew of its use at the Academy of Music for the last eighteen years.

Dr. Taylor called the speaker's attention to the fact that he had spoken of cold, but did not speak of ice. He inquired, if the pressure caused the effect rather than the cold, whether, in a parallel case, it might not be the manipulation rather than the hot douche that brought about contraction.

Dr. Blackwood said that in one case he had used nearly half a bushel of ice, packing the uterus time after time, without checking the bleeding. In his last experience with the hot water the uterus had contracted immediately.

Dr. R. Burns, of Frankford, has had some six or seven thousand cases of obstetrics, and has seen a great deal of uterine hemorrhage, and never used one pound of ice nor one pint of water, but always relied on manipulation, with one hand in the uterus and the other on the abdominal surface. After the high terms in which the article has been spoken of, he felt interested, and would use it if necessary, but saw no reason as yet for adopting any other expedient than the one he had thus far found efficient and always convenient for application.

Prof. R. Beverly Cole, of San Francisco, present by invitation, at the request of the President, gave his views as follows: "I have been not a little interested in the use of hot water in parturition, and in the conclusions of the lecturer, which agree with my own observation and others of equal experience, that hot water is an invaluable agent as a hæmostatic; but my experience also confirms what has been said during the discussion concerning the obtaining of the same effects from cold. The great difficulty seems to be in arriving at an intelligent explanation how hot water acts in producing this effect. It is well that there are a number of surgical gentlemen in the room, who may be able to decide why it is that we obtain the same result from hot and cold applications to wounds. But here is a salient point that may be discussed in connection with the subject of the paper; hot water acts directly upon the nervous elements in the womb, and also upon the middle muscular and elastic coat of the vessels. We know very well that the middle coat has great contractile power, and anything which stimulates this investment of the vessels would cause their contraction and retraction and check hemorrhage. This explains the blanching of the surface that has been referred to. It also allows of plugging of the orifices of the vessels, so that the bleeding ceases, and produces contraction of the uterus from stimulation of its unstriped muscular fibers.

"I think, however, that the lecturer goes too far when he says that it is the most convenient agent for the purpose, or that it is the most effective in the puerperal chamber. The application of the hand, externally and internally, to stimulate the uterus to contraction is certainly more convenient, and is often as efficient. In urgent cases, the suggestion of Michel, of South Carolina, to compress the aorta just above the origin of the uterine vessels, is very valuable; I have tried it again and again, and found it effective in every instance, and easy of application.

"The loss of time in sending for the hot water and in getting the appliances ready must interfere with its use, and in cases of emergency, where the bleeding is profuse, would seriously affect the chances of the patient's recovery. I believe that the pressure of the uterus and molding with the hand, with compression of the aorta, will generally prove sufficient. During the last twenty years I have not lost a patient from post-partum hemorrhage, and feel perfectly satisfied with the results of manipulation and compression, and think that they will accomplish all that can be obtained by the hot water in producing contraction and checking hemorrhage after parturition, with less disturbance of the patient, and greater convenience to the accoucheur."

Dr. Ulrich, of Chester, by invitation of the Chair, said that this treatment of post-partum hemorrhage was a new one to him, but he believed it to be a valuable one on the statement of Dr. Smith, and in a case of emergency he would be inclined to adopt it. He had not been successful with cold applications, and for many years had relied exclusively upon stimulation of the uterus by the hand; contraction soon takes place, and the hand is forced out, and the hemorrhage ceases. He was unable to understand the rationale of the operation of an agent that relieves a painful affection of the ear and also a relaxed condition of the uterus—two apparently contrary conditions. In regard to the corrugation of the finger, it is caused by cold as well as by hot water.

Dr. O'Hara thought that the more stimulating effect of hot than warm water might be explained by reflex action, the hot water irritating the nerves of the uterus more than the warm.

Dr. Albert H. Smith, in referring to the suggestion of the chairman as to the use of hot water in surgery, said that he used it constantly in plastic operations, with the effect of checking oozing blood. The warm douche relaxes the tissues and favors the pouring out of discharges; the hot application produces contraction and checks the flow of blood.

The use of dry heat, as suggested by Dr. Levis, might be efficient in surgery, but would not be so applicable in the present cases on account of the impossibility of bringing it in contact with the entire bleeding surface, and, moreover, it has not the advantage of washing away the clots and discharges from the vagina.

The compression of the aorta is a useful auxiliary in desperate cases, but is only temporary in it effects, for the bleeding may recur as soon as the pressure is relieved. The hot douche, on the contrary, produces permanent contraction.

Ice, when introduced into the uterus in pieces the size of a man's fist, is a valuable agent in treating uterine hemorrhage, but it is liable to produce a depressing effect subsequently.

It has been objected that the length of time required to obtain the hot water and necessary appliances is a drawback to the introduction of the hot douche. On the contrary it should be looked upon as a necessary part of the armamentarium of the lying-in chamber, and, as such, always provided ready for use. Just as when ergot was used, an obstetrician was considered as neglecting his duty if he attended a case of labor without his ergot, or as where a physician goes a distance from home to attend a case without taking his forceps, so he should be provided with all that is necessary; and the speaker considered that hot water should be kept in readiness on such an occasion, and recommended its use in all cases of labor. The attendant fails in his duty as an obstetrician if he fails to see that everything is prepared; he is bound to be provided against emergencies, and what can be more readily supplied than hot water?

In answer to Dr. Ulrich, as to the use of hot water in inflammation, he stated that its first application in gynæcology was that suggested some years ago, by Dr. Emmett, where he recommended it in the treatment of cervical congestion, for which it is now a standard remedy; used by injection once or twice daily.

The introduction of the hand, to stimulate the uterus and break up the clots, is a useful and necessary expedient, but an agent that will also wash out the cavity and bring away the clots is much better. Dr. S. had seen the uterus contract under the hot douche with rapidity, safety, and certainty, and better than by any other agent with which he was acquainted. He had also seen its revivifying effects in lacerations of the cervix that he had referred to, and its power over hemorrhage. He thought that it might also be used in checking uterine hemorrhage in cases of malignant disease, or bleeding from any other source in the uterine cavity. If it can check a hemorrhage from laceration of the cervix and its circular artery, it will stop bleeding in malignant disease.

PARACENTESIS PERICARDII.

Dr. John B. Roberts read a paper entitled "Is Paracentesis of the Pericardium Justifiable?"

Dr. William Pepper said that this operation is one of a group which he had always been inclined to claim for medical men rather than surgeons, as the operation itself is a comparatively trifling one, while the questions of the time for the operations and its conditions are of the greatest interest and importance. He agreed with Dr. Roberts in his reply to the caption of the paper, and thought that the recorded results were sufficient to authorize an affirmative answer to the question.

From observation of post-mortem examinations in which unsuspected pericardial effusions are sometimes found, he had concluded that such large effusions are not infrequent, but that they may be, and doubtless often are, entirely overlookod during life. And yet the physical diagnosis is, as a rule, very simple and easy, the only possible difficulty being in the case of a dilated heart, where there is a feeble, asystolic action of the ventricles, accompanied by extended area of dullness. That this difficulty exists must be admitted, since cases have been reported in which paracentesis of a dilated heart has been performed under the impression that there was fluid in the pericardial sac, and this in the hand of men whose position is evidence that they were competent to decide. Of course, the case is different where the physician has watched the patient from the beginning, as in a case of acute rheumatism, where frequent examination of the heart is required. In such cases he would detect the early friction in the pericardium before the effusions of fluid in sufficient quantity to separate its layers. The difficulty in diagnosis would only occur where you are called in to see a case that is fully developed; but even then there are points that would generally prevent a mistake: these are the altered intensity of the sounds, the relation of the cardiac impulse to the intercostal spaces, and the outline of the percussion dullness; and it would seem that with due attention to these points no mistake can occur. There are complicated cases, however, where some doubt must remain. In a patient operated upon recently, there was a large pleuritic effusion accompanying one in the pericardium. In such a case he would recommend that the pleural effusion should be removed by the aspirator, and, if necessary, the pericardium can be subsequently tapped. This course was adopted in the case referred to; and it was found that after removal of the fluid from the pleural cavity, the effusion in the pericardium was absorbed without further interference, under medical treatment.

In regard to the point selected for introducing the needle, he would prefer one that is a little farther from the sternum than Dr. Roberts has recommended, and in the fifth interspace, as being less likely to injure the ventricle; at a site about on a line with the nipple, a little to the outside of the position of the normal apex beat.

In performing the operation, a moderately-large aspirating needle is preferable to a small one, since inflammatory effusion in the pericardium is apt to contain shreds of lymph which would clog a small needle. It is difficult to introduce a plunger to clean a small tube, and they are also less easily reintroduced if it becomes necessary to remove them to clean them. For this particular operation he had devised an instrument which can be used without danger of scratching the heart, but which he had only tried on the cadaver.

In regard to the operation, it has simplicity in its favor. As the results are always brilliant in the marked relief and improvement it affords, and as it frequently prolongs life so as to give time for the action of other remedies, it will compare favorably with any other procedure in the field of legitimate surgical operations.

Dr. Roberts stated that he had not intended to recommend a very small aspirating needle, but one of moderate size. He would not use a large one, on account of the injury to the pericardium, and the probability of subsequent leakage into the pleural cavity, and possible pleurisy. As regards the shape of the trocar, he believed that Fitch's dome-shaped trocar was less likely to injure the heart.

In regard to the diagnosis, too much stress is laid upon the pyramidal shape of the dullness; the statement in the books is that it is a *rude* triangle, and it might happen that because it was not more perfect some doubt might exist as to the diagnosis.

MICROSCOPY.

Hæckel vs. Virchow.

BY WALTER C. HUBBARD.

To the microscope, as an instument of research, we are indebted for many of the remarkable advances in biology, which the morphological studies of Hæckel have given to modern science.

Considering the attention given to Hæckel's theories, fostered by the recent publication of his work on the development of man, a reference to his "Free Science and Free Teaching," lately published with a preface by Prof. Huxley, may be of interest. This is a reply to Prof. Virchow's address before the German Association at Munich, in 1877, in which the author states clearly, and with much vigor, the reasons for his dissent from Virchow's position, and enunciates, with the distinctness characteristic of Hæckel, the advanced views he advocates. In this controversy, Virchow's opinion is the more conservative, while Hæckel, sure of his position, permits no doubt or question to weaken his convictions. Truth will ultimately evolve from the conflict of warring theories. An implicit acquiescence in modern views, or stagnation of thought concerning the great questions which science is presenting for solution, is manifestly unwise. Hence, the value of such antagonism; for each advocate, in endeavoring to pierce the logic of facts of which his opponent makes an armor, adds, perhaps unwittingly, to the sum total of human knowledge—casts a stone upon the burial-heap of ignorance and idle conjecture.

Briefly, Virchow took exception to Hæckel's positive assertion of the truth of Darwinism, or natural selection, holding it to be as yet an "unproved hypothesis," and questioning the propriety of teaching anything the certainty of which is not absolutely demonstrated—anything subjective in its character as opposed to the external or objective; the latter to be the only mental diet of learners in the schools. Naturally, this stimulated Hæckel to reply; and he does it with cogent reasoning, grim humor, and caustic irony. We will attempt to outline his argument.

The progress of the evolution theory, says Hæckel, has been greatly advanced by the fact that there are but two alternatives from which to choose—either that of natural development, or of supernatural creation. He defines the universal theory of evolution, Monism; the theory of descent, Transformism, explaining the origin of organic species by transformation; the theory of selection, Darwinism, at present the most important, but by no means the only one. These several theories, according to Hæckel, are continually and unwittingly confused with each other. Doubtless many imperfectly known causes have been of importance in effecting the origin of species, and the judgment of naturalists will differ as to the value of each; but this does not affect the validity of the general doctrine of descent, the only rational one. The proofs of this doctrine, Hæckel considers, are sufficient, and will never be stronger; they are valuable because deduced from the totality of biological phenomena, not from this or that single observation.

The evidence, upon which the theory of descent rests, shows that the observed phenomena can only be explained by this theory, and reduced to mechanical causes; the guarantee of truth lying in the fact that these ultimate causes are the same for all the complicated processes of nature. He asks, where else can the facts be found than among those of physiology and morphology, paleontology and distribution, and the biological sciences in general. We have also the evidence of actual experiments. Hæckel refers to the sponges as yielding the most positive indication that the term "species" has only relative value. He alludes to the great progress of morphology, and finds in it justification for his conclusions. He shows the importance of craniology, and expresses the fear that Virchow and others have forgotten what they wanted to prove by their measurements.

That man has descended from the ape is nowhere assumed, but from the order of apes—from one or more species now long extinct. The theory does assert that the species in the long series of man's immediate ancestors were ape-like animals. Hæckel states that the relative certainty of this hypothesis can not be compared, however, with the absolute certainty of the general theory of descent. He considers all such hypotheses dependent upon the knowledge existing at the time in which they are made. In the chapter on "Cell Soul and Cellular Psychology," Hæckel expresses his opinion "that we must ascribe an independent soul-life to each organic cell." He defines soul according to the two theories—realistic and spiritualistic—adhering to the former, and adds that Ehrenberg maintained that all Infusoria had nerves, muscles, and organs of mind and sense. Hæckel concludes that, in the lowest condition of the human ovum, the mental attributes of man begin their course of development, and he finds in this a proof of his realistic theory.

Concerning methods of teaching, Hæckel inquires where the distinction can be made between subjective and objective knowledge. He holds that all human knowledge is subjective, believing an objective science without theories inconceivable. He reviews the several sciences, and finds that even in mathematics the fundamental principles can not be proved. The modern discussion as to a fourth dimension of space is cited as an example of the development of thought in the least expected direction. In physics, what is known of the essence of matter, or of force? Gravitation is but a hypothesis. Electricity and magnetism, what are they? The idea of an ether filling space, however probable, rests upon conjecture. Even atoms are not objective. Geology requires a theory of its records. In fact, Hæckel shows the impossibility of teaching science at all, if Virchow's position is tenable.

Prof. Virchow renders himself liable to severe criticism by his assertion, that the attempt to depose church dogmas, and place in their stead the religion of descent, must fail. Hæckel is not slow to avail himself of this opportunity to reply, and takes issue with his opponent in no measured terms. With this assertion, at least, he has no patience. He asks, pertinently, which idea of religion is to be adopted, and leaves his opponent to define upon what scientific basis the chosen one shall rest. A discussion follows upon the connection between socialism and the doctrine of descent, in which any logical contact of the two is disclaimed. The theory of descent, it is asserted, is aristocratic in the fullest sense; and warning is given against the misapplication of scientific theories.

The views of Prof. Virchow have naturally been received with delight by the clerical party in Germany, and have also been applauded, owing to the odium brought upon the theory of descent by falsely coupling it with the political vagaries of the socialists. The alarm about these malcontents extends to any philosophical views which appear to be in dissonance with the established social condition. The high standing of Virchow has lent an additional weight to his argument; opposed to him stands Hæckle, the uncompromising advocate of free thought.

Owing to these tides of opinion, which ebb and flow in the ocean of human thought, it is well at times to have a restatement of the positions of the leaders—reports from the outlying posts of the tendencies of intellectual progress. Theories should stand the test of criticism, hostile and appreciative; and, as they approximate the truth, their value is proportionately increased. What seem to be certainties are, after all, only probabilities; science only can show what is the most likely to recur under similar conditions, and to it are we indebted for all positive advancement.

Hæckel, in basing his conclusions upon observation and experiment, seems to approach nearer the truth than any who advocate views from mere conjecture.

In raising the "odium theologicum" against purely scientific opinions, prejudices which are not easily allayed are excited. Differences in the interpretation of facts are to be expected and hoped for; final conclusions should be determined by their reasonableness and their fitness to the phenomena they explain.

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Dentition as a Cause of Diarrhea.—Between the sixth and twenty-eighth month dentition plays a very important part in the production of diarrhea. It might be called a nervous diarrhea, for it is probably due to reflex nervous disturbances. If dentition is not directly responsible for many of these diarrheas, it is indirectly so by putting the system in a condition to be more susceptible to all those influences which do produce diarrhea. In all cases where the gums are swollen, lance them. In any case where it is about time for the tooth to come through, lance the gums over the tooth thoroughly and draw some blood. I believe the disturbance is often due to pressure of the tooth deeply in, and before it shows much swelling on the surface. Lancing the gums never does harm. It is better to err on the side of lancing them when there may be no necessity, than to fail to lance them when there might be necessity. I have often seen a child having from ten to twelve movements a day relieved entirely by lancing the gums, and with no other treatment. It is in these cases that the bromides prove so effectual. Give the following combination of a bromide with mucilage to a child between six months and a year; older children a larger dose:

℞ Sodii bromid . . . . . ʒ ss.
Mucilag. acaciæ . . . } aa ℥ij. M.
Aquæ puræ, q. s. ad . . }
Sig. One dram q. three hours.

The bromide diminishes the reflex disturbance, and the mucilage is soothing the irritated intestinal mucous membrane.

Medical College of Ohio.

Opening of the Session of 1879–80.

INTRODUCTORY LECTURE OF JAMES T. WHITTAKER, M. D.*

JUST one hundred years ago, in 1779, Anton Mesmer was in Paris, in the zenith of his fame. He had made, he thought, and the world thought, a marvelous discovery, to the effect that a fluid emanated from the body, a fluid like electricity, which, passing to the bodies of others, cured them of disease.

Mesmer came honestly enough by his discovery. He had spent years in the study of magnetism and mystics. He had chosen as the subject of his inaugural dissertation the influence of the planets upon the human body. In his personal magnetism he discovered the key to all the mysteries. He would be able to unroll the secret scheme of the universe. Sickness should no longer exist. He had but to lay his hands upon disease and straightway it should cease to be. Such wonderful cures he had worked with it in Vienna as to lift him from the sphere of an humble practitioner of medicine into wide notoriety. But just as he was about to reap some practical benefit from his work, a cruel Government Commission pronounced it a fraud, and he was obliged to leave the city.

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*This interesting Introductory Lecture should have received place in the first part of the NEWS, but that part was set up and closed before the lecture was received.—ED.

Forthwith he betook himself to Paris—Paris which remains to this day the seat of the most critical skepticism, and, at the same time, of the blindest superstition. Mesmer took the city by storm. His beauty of person, elegance of manner, his enthusiasm, charmed the town. His *salons* were soon crowded with women. Perfume and soft music were in the air. The poor, hysterical victims were quickly asleep—asleep, after the tremor, the delirium, the ecstasy, which so profoundly exhausts the nerves.

Soon such crowds assembled as to render impossible personal contact with every case. So Mesmer devised a staff which carried the magnetic fluid just as well. One patient after another was touched to sleep. Such a picture I have seen in Rome, when a Cardinal, in flowing robes, seats himself upon a throne, and with a long staff touches and anoints—or does he absolve?—the semicircle of penitents.

After a while the crowd became too great for even the staff. So Mesmer magnetized, by his touch, a bucket of water, to which was attached a number of iron rods, and the patients, holding the rods, soon fell asleep.

D'Elson, physician to the Count d'Ortois, fell in with Mesmer as a satellite—no delusion was ever yet practiced without distinguished followers—and in his zeal for his master o'erleaped himself and fell, and felled everything with him.

D'Elson was so imprudent as to challenge the investigation of the Paris Academy of Medicine. The Academy appointed five of its best men to study the new craze of the town. The Committee unanimously pronounced Mesmerism a fraud, and the great charlatan had to leave Paris for Germany, in a little village of which he died in total poverty and obscurity.

They do things differently abroad. With us the adverse verdict of a body of scientifically educated men is the most profitable advertisement for the quack. We take Mesmer, for a moment, in the full blaze of his fame, when his *salons* were filled with the fashion, and his name was on every lip.

"Doctor," said, one day, a skeptical visitor, "Why do you always use river water in your bucket, rather than that from cisterns and wells?" "Because," was the ready reply, "river water is exposed to the rays of the sun, and is therefore magnetized. I, myself, magnetized the sun some twenty years ago!"

Sublimity of self-conceit! We read with a smile the orders given to the sea by tyrannical commanders to stay within prescribed bounds. We remember the lashing it received for disobedience at the hands of imperious Cambyses. We recall the expedient of Alexander, of having a man stand by him and constantly remind him that he was a man, and not a god. Yet, so little do we profit by the teachings of history in all time that the least of us clothed in a little brief authority finds it hard to abstain from fantastic tricks. In fact, as the ghost said to Hamlet, "conceit is weakest bodies' strongest works."

Our nineteenth century is a pæan of boasting and conceit. Do not the mightiest forces of nature stand at our control? We chain the lightning, toy with electricity, overcome gravitation, annihilate distance. We have machinery that can convert any one kind of force into another, and make them all minister to the wants of man. We can substitute sunlight with electricity, we can lift a mountain from off the face of the earth, or a mighty rock from under its waters. We can correspond instantaneously around the globe. Nay, we can speak together from far beyond hearing distance. We may have our speech spoken again with our own tone of voice a thousand years after we are dead. We have invention to comfort us, and art to amuse us, such as was never dreamed of by the wildest visionaries of ancient days. Power and dominion are in the hands of man. No wonder he carries his face to the stars!

What bubbles are the triumphs of man! The ship in full sail, his proud creation, that glides in majesty over the face of the deep, is in one short hour a drifting wreck upon its waters. The accumulations of a life-time, or of generations, dissolve in a night. The scintillations of genius are, by a lesion which is ultra-microscopic, smothered in the babblings of lunacy. Prosperity smiles upon a vast section of country, the face of it is covered with the products of industry, and the faces of men are happy with prospective gain. A vessel lands upon a distant coast and brings over a single case of fever. A blight passes over the land, and leaves of fertile valleys deserts, and tombstones of happy homes. A little trembling of the earth buries, in the twinkling of an eye, a whole city, with all its people. A little rising of the waters, and everything is washed away. A few hundred years alone sufficed to leave no trace. How fittingly do ruins symbolize the wishes and the fate of man, the weakness of his works, the fleetingness of his existence! "Who can visit Thebes," says Alger, "in whose crowded crypts, as he enters, a flight of bats chokes him with the dust of disintegrating priests and kings, without thinking of these things? * * * Tyre was situate of old at the entry of the sea. The tiara of commerce was on her brow. Haughty in her purple garments, she was mistress of the earth. The little dust of her foundations has long since blown to the winds, and where Tyre was is now but a blistered rock, whereon the solitary fisher spreads his net. A few tattered huts stand among shapeless masses of masonry, that once was the architecture of the glorious city of Carthage; and where voluptuous Corinth lifted in splendid array her marble palaces and golden towers, are now the simple homes of a handful of farmers. Many a nation, proud and populous in the elder days of history, like Elephanta and Memphis, is now merely a tomb and a shadowy name. Pompeii and Herculaneum are empty sepulchers. Poppies bloom in the streets that re-echoed the sounds of chariots. Tigers forage in the palace yards of Persepolis; camels browse in Babylon on the site of Belshazzar's throne, and lizards crawl unheeded at Baalbec over the sacred altars of the Temple of the Sun."

But we do not need to go so far away in space or time for evidence of the impotence or insignificance of man. Even in the midst of the most distracting scenes, in a living commercial metropolis, throbbing with trade and pulsating high in art, we have but to step anywhere behind the walls to witness the ravages of time and death. * * * * * *

And the revelations of modern science—what comfort do they disclose? What, now, of the scheme of the universe, and the place and the prospects of man? The time was when man could at least affect to look upon himself with pride. He was made perfect in the image of his Creator, and all other created things were made for him. He lived upon an earth which was the center of the universe. About it the sun revolved to give him light, and all the stars were fixed above it to vary his firmament with delightful pictures. He was king of living things upon an orb which was queen of the universe. Alas! how much, indeed, has he fallen from this high estate! The physiologist has shown him that the matter of his body is his only for the hour. It is not the same yesterday as to-day, to-day as to-morrow. His blood, which used to be looked upon as his life, changes every minute,

> "Nor are, although the river keep the name,
> Yesterday's waters and to-day's the same."

His blood and his brain, his muscles and his nerves, are all only machines for the liberation or transformation of forces locked up in his food and drink.

The chemist has made it no less plain that all the matter of his body must be resolved back to its mineral constituents, to be reconstructed time and again into other living forms. To the construction of millions of similar bodies the elements of his composition may have already served, and when the identity of the individual is lost they may serve for millions more yet to be born. Although the mineral wealth of our earth is absolutely limited in quantity and quality, the forms of living things made out of them, things which are to live and feel and suffer, are limitless. Such herds and crowds of living things of every kind and degree there are, as to necessitate feeding upon each other and still to starve each other out. Wherever was absence of other animals as food, men had to eat each other. The anatomist shows him that in his construction man differs in no way from the rest. He has the same bones and muscles and nerves, in the same order, in the same arrangement, in the same connection. All in common differ only in the degree of their development.

The physicist now calls his attention to the fact that his existence upon earth is by no means a necessity to the existence of the earth. Millions upon millions of years elapsed before man in his lowest forms put in any appearance at all. The conditions permitting his existence must necessarily cease in a few more millions of years, and entirely different forms of life may develop, or our earth may swing about in space many millions of years, void of all life, a burnt-out cinder, like our moon. Last of all, the astronomer lifts from his eyes whatever scales of conceit may be left, with the information that the earth upon which he lives plays an entirely insignificant and subordinate role in the economy of nature. From some of its sister planets it is reduced to a speck of light, and from all the stars of heaven it can not be seen at all.

So, instead of being king of creation upon an orb which is queen of the universe. man becomes reduced to an accident, resulting from conditions existent at his birth, and the earth upon which he lives is but an atom, for the most part an invisible atom, in the limitless expanse of space. Why, then, should only a prophet say: "What is man, that thou art mindful of him, or the son of man, that thou visitest him?"

What, then, is left for man? Shall he wring his hands in the lunacy of impotent submission to powers beyond his control? Shall he wander solitary in the desert, to moan uninterrupted over his fellow's frailty? Shall he sit upon the earth and tell sad stories of his fellow's death? Shall he seize with murder and rapine; seize with the cunning of the charlatan, or the craft of trade; seize for the enjoyment of the hour, and leave the deluge for posterity?

Let him read, first, the lesson from the page of human history. Whatever he has that lifts him above the brute from which he sprung, whatever he has and is, he worked it out alone. The house that gives him shelter, the clothes that give him warmth, the food that he eats, the law which protects him, the skill which cures him of disease—he worked it all out alone. The transition from the clumsy tools of stone to the ingenious implements of steel covers a period of thousands of years of sweat and toil. Against the most frightful odds has every advance been worked. Against hunger and cold, against every calamity and casualty that could be inflicted, against earthquake and avalanche, flood, fire and volcano, against climate, pestilence, against every kind of disaster, man has had to strive. But the bitterest strife is against his fellow-man. Against all these odds, in the midst of all these dangers, has been a perpetual strife and struggle; and yet the race has survived and improved the conditions of its existence. New crops cover the soil parched of its last year's products. New cities cover the plains stripped of the old ones by plague and war.

And what have been the means of all this renewal? Not supine surrender to fate; not lamentation; not an idiotic interpretation of curses into blessings, and Asiatic satisfaction with permission to simply live. None of these. The renewal and the progress came all of persistent struggle and work imposed as an absolute necessity of existence. Continued growth and reproduction are the primal law of nature—a ratio of increase so high as to lead to a struggle for life, and, as a consequence, to natural selection and the slow but certain improvement of form. It is from this view of life alone that we observe any real grandeur. It is in regarding man as on the road to, rather than as having already obtained, perfection, or as having attained it and lost it by a puerile or frivolous act, that a rational mind may look upon his life with approbation. He must work or waste. Let him then work without a whimper. Acquisition, admiration, ovation, are his rewards in that exercise of faculty which develops and perfects. He is, then, the true philanthropist who is engaged in helping along his fellow-man, who is removing obstructions in his path, or who is strengthening his body for better work; who is, in short, living for others rather than for himself.

Here is the field for the physician. The improvement of his surroundings is the task for the physicist; of man himself is the task for the physician.

As we know man, his frame is very far from perfection. Not an organ in his body is perfect. Snares and death-traps are universal in it. His teeth are so imperfectly covered with enamel as to suffer caries and destruction. His lungs stick up in the root of his neck to catch the effete products of expiration, and cause consumption. His intestines have relics of structure from lower animal life, sacs leading off from the main tube to catch foreign bodies and cause death by inflammation. His nervous system shows the highest capacity of suffering pain as the only means of warning him of danger. His special senses have all become drilled to some degree of acuteness through pain. The finest minds are stamped with melancholy. The finest eyes wear a look of resignation. A weakness which he may not have acquired by any imprudence, folly, or even accident, he has the privilege to have inherited from generations back. To discover, and, if possible, eradicate the disease, physical or mental, as the metaphysicians say (as if there was any difference), or the tendency to disease, is the business of the physician. The individual thus relieved is again fitted for the struggle. It would seem to be very true that several thousand or million of these our fellow human beings might as well never have been born, or being born might as well die, so far as concerns any effect upon the end to be accomplished; but these are questions for future political economists. As we find the existing state of things, we live with a capacity of suffering and enjoying infinitely keener than any fellow-creatures lower in the scale. Some of each is born with us, some we achieve, but most of our suffering and enjoyment is thrust upon us. To relieve suffering, and thus add to the enjoyment of life, is the natural impulse of every properly constituted human being. But the sum of the suffering is so much greater than the pleasure that a special set of men come to be set apart to devote their lives to its relief. This is the sphere of life which you, gentlemen, enter upon to-night. You may be congratulated somewhat, but commiserated more. You select an avocation which, pursued aright, will bring you gratitude, the approbation of man, and the approval of your own conscience. Much money and its comforts it can never bring, for the income of most of your clients is stopped by the disease which calls your service. The few who succeed in what the world calls success will live in slavery which is none the less in galling because the bars of your prison may be gilded. The Englishman's conception of luxury, seclusion, you will never know. Of that happiness that falls to the lot of the poor as well as the rich, of that quintessent happiness which the king may know in relief of the cares of state, or the cotter may know on Saturday night, domestic happiness, domestic, from *domus*, a home, you will know less and less as you succeed more and more. Of holidays, of Sundays, you will know nothing.

But in compensation for all this loss you will experience the keenest pleasure in the exercise and development of the faculties of the mind. You will live surrounded with the works of the strongest minds of all ages. You may feast upon the finest productions of genius. You may yourselves wring from reluctant nature some new discovery which will surround your name with a halo forever. We have already had, and we shall have continually, to observe that most of the great men in medicine were originally, like Laennec, country students. * * * *

The places you would fill are already filled by the strong men—men who realize that conservatism is as hard as creation—and the new generation to fill up the ranks must be stronger than its predecessors. It is not, however, that you must succeed at another's expense. Fighting men have attained pre-eminent success, but they have succeeded not on account of the possession of such qualities, but in spite of them. "The glory of arms raises itself upon ruins; its consecration is a baptism of tears. It is but the triumph of force, which passes from one flag to another. The victories of science have nothing to fear from the reverses of fortune; alike profitable to victors and vanquished, their beneficent works constitute the most solid glory." * * * * * * *

The role of the real physician was never better described than by one who lived true to his ideal of it. "There occur now and then in history," said one of his compatriots and colleagues, in his eulogy of his friend, "venerable and venerated figures, uniting at once peace of soul, elevation of character, purity of life, amenity of manners, and that indescribable penetrating charm which inspires affection as much as respect. Such was our confrere, Dr. Jumeau, the most noble representative of all medical virtue and professional honor." I give you now his ideal of a medical man:

"If we pass now," he wrote, "to the qualities of the heart, we must put in the front rank that sympathy which makes us feel for our kind. This quality may not be acquired. It is the most precious gift of nature, and woe to that physician who does not possess it. It is this feeling which inspires our patients with confidence, and ourselves with desires for their relief. And it is this feeling which gives us courage in the times of public calamity to brave every danger for the succor of the sick.

"The physician must, then, be entirely disinterested, attend the poor just as the rich, go to the garret with the same haste as to the most brilliant *salon.* He must be gentle to those beneath him, simple to those around him, and proud to those above him. Human passion shall have no access to heart. The love of his fellow should be his only passion; to be useful to them his sole ambition. The physician who acquits himself of his duties with probity and honor proves the exclamation of Hippocrates: 'Medicus philosophus deo similis habetur!' The gratitude of his patient and the general approbation should be his sweetest recompense; but he must be able to rise above all such considerations, and when the injustice of man refuses them, he may still find in the approval of his own conscience every happiness and peace."

Such was the ideal physician of the old school.

Over his doorway is inscribed in letters of gold: "Nihil humanum alienum a me," "Nothing human is foreign to me." The history of the medical profession is it not a long story of sacrifice of self for others? The charred skeleton of the Roman soldier at the gates of Pompeii, who staid there and died because he had no permission to leave his post, thrills us when we see it. Yet every day we read of the slaugher of medical men by infectious disease, contracted in the line of duty, without the least emotion. The bold charge of the six hundred at Balaklava, the poet laureate deems worthy to immortalize in verse; but no one thinks it worthy of mention in the plainest prose that when the cholera fell upon us, slaying more than the fiercest battle, when every one fled who could, and those that were left had nothing to pay for the service, every physician stood at his post.

The danger signal flies at the mast-head all the time about the life of the daily practitioner. * * *

"Nihil humanum alienum a me," Nothing human is foreign to me. Come over and help us, they cried in Macedonia, and the response of the missionaries made an incident to be recorded in Holy Writ. Going and helping, is that not the daily and nightly round of the medical man? Day and night, in rain and snow and sleet, from the hours of rest and pleasure and food, think again, O student of medicine, before you continue your work. Think, again, what temptations are put in your way!

In the practice of your profession you will have put into your hands trusts like those in no other. These are not secrets of state, upon the divulgence of which the fate of nations may hang, nor funds, the wreck of which may bankrupt a community. Your trusts are the lives of individuals, and, what is more precious still, their reputations. I may not make of this opportunity a commencement address. still less a sermon, but I may take this occasion to say, right upon the threshold of your work, that the trust of life is safe only in the hands of him who has made use of his opportunities in student life. The diligent student is the conscientious practitioner of our art. The lesson of the inviolate sanctity of human life is a lesson not taught in the streets in the daily struggle for existence and success. It is taught on the benches of the college, and at the bedside in the hospital amphitheater, in the efforts at rescue made on behalf of human beings, lowest, as well as highest in the social scale.

Human nature is unvailed in the presence of the physician; "but your tongue shall never reveal what your eyes have seen or your ears have heard," said, more than two thousand years ago, the father of our art. Four centuries later, in ancient Argolis, on the front of the temple raised by Thrasymedes to the god of medicine, might have been read these words: "No one may enter here who is not pure in soul," and the statue of ivory, mute to vulgar ears, revealed its oracles to them alone.

* * * *

Mephistopheles tells the student of medicine, if he would succeed in its practice, a great secret when he whispers, "Besonders lernt die Weiber fuhren"—be especially pleasing unto women. Perhaps you may remember that the god of medicine was Apollo, the deity who presided also over the muses and the fine arts. But the student must take care to read Mephistopheles' suggestions aright. Between fuhren and verfuhren—between leading and misleading—is a gulf as broad and deep as the line of demarkation between healthy tissue and a slough. That costly and most precious fabric which concerns the well-being of man, the especial pride of civilization, and the foundation of society, the honor of womanhood, is sometimes intrusted to you. You will have put in your hands a vase, the perfection of whose design has required ages of the highest civilization to construct; a vase of such wondrous workmanship as may make you forget, in your admiration of it, the purpose of its trust. You will not close your hands upon it! Woe is unto him who will crush that delicate and fragile vase, for it is not a dead albatross, it is a millstone which will be hung about his neck!

Who rather handles with reverence and respect may realize upon this earth a paradise. "In thine eyes," said the dying Bunsen to his wife, bending over him with a face lit up with the light of supernal affection, "In thine eyes have I seen the Eternal!"

I translate you now, in conclusion, the last words of a salutatory by a sturdy old Swiss physician—Sonderegger: "There is, after all, on earth, nothing greater or finer than man. He is, in thought and deed, the last and highest creation. His living, and loving, and suffering, everything that he is and does, is touching. Bright eyes and fine ears you must bring to your ministration to him; a great talent for observation, patience, endless patience for endless learning, a clear, critical head, with an iron will, which is strengthened in the hour of need; yet a warm heart, easily moved, that can understand and feel for every kind of pain; a rigid propriety, a stern morality in matters of fame, and fee; a decent exterior. Moreover grace in movement, skill in touch, health in body and soul; all these you must have to be a good and successful physician.

"You must carry with you the overladen, uncomplaining camel's burden of knowledge, and you must carry it with the freshness and the brightness of a poet. You must know all the arts of charlatanry, while you still remain an honorable man.

"At the shrine of medicine only may you worship; medicine shall be thy religion, and thy politics, come weal or woe!

"Therefore advise no one to study medicine. Plead with him who will study to refrain. But if he still persist, lift above thine arms; give him thy blessing for what it is worth; perhaps he will remember it in the sore hour of his need."

BOOK NOTICES.

INTRODUCTION TO THE HISTORY OF IRON MAKING AND COAL MINING IN PENNSYLVANIA. Contributed to the Final Report of the Pennsylvania Board of Central Managers. By JAMES M. SWANK, Secretary of the American Iron and Steel Association. 8vo. Pp. 125. Philadelphia: Published by the Author.

DIRECTORY TO THE IRON AND STEEL WORKS OF THE UNITED STATES, embracing the Blast Furnaces, Rolling Mills, Steel Works, Catalan Forges, and Bloomaries in every State and Territory. Prepared and published by the American Steel Association. Corrected to September 1, 1878. 8vo. Pp. 156. Philadelphia: 265 South Fourth Street. 1878.

PROCEEDINGS OF THE CONVENTION OF THE IRON AND STEEL MANUFACTURERS AND IRON ORE PRODUCERS, at Pittsburg, Tuesday, May 6, 1879. 8vo. Pp. 45. Pamphlet. Philadelphia: American Iron and Steel Association.

STATISTICS OF THE AMERICAN IRON TRADE. Annual Report of the Secretary of the American Iron and Steel Association, containing Statistics of the American Iron Trade for 1878, and Preceding Years. By JAMES M. SWANK, Secretary. Pamphlet. 8vo. Pp. 48. Philadelphia: American Iron and Steel Association.

Two of the four works whose titles we have given have the name of Mr. James M. Swank on their title pages as the author. It is probable that the other two were also written by him.

Although a knowledge of the manufacture of iron and steel and coal mining is not essential to the practice of medicine, yet, as all the natural sciences, especially chemistry, geology, mineralogy, etc., are collateral to medical science, they are subjects of interest to every intelligent physician; and he is pleased to acquire all the information in regard to them that falls in his way.

The chapters of the first work, whose title we have given, the author states, were written during the summer of 1877, at the request of the Pennsylvania Board of Centennial Managers, to accompany their final report to the Pennsylvania Legislature. The object is to record, in chronological order, and without violence to geographical requirements, the first steps that were taken in Pennsylvania to make iron, and to show the extent of the iron interest of the State at the close of the century of our national existence. The industry which the author exhibits in collecting facts is highly creditable to him. In his research, he has seemed to search through the whole literature of the subject; and, from the titles of the works he quotes, we are surprised at the extent of the literature. But observation and experience have taught us that there is no subject in regard to which not only much intelligence may be manifested, but even profound learning displayed. Our citizen, Mr. M. D. Mansfield, has written extensively on the mineralogy of the different States of our country, and is famous for his statistical knowledge. But, as his articles have been published only in newspapers, and not in the form of a bound work, we do not find him quoted by Mr. Swank.

We learn, from Mr. Swank, that Pennsylvania was one of the last colonies to begin the development of its iron resources. In 1692, he says, iron was first made in the furnace. The first account is by a metrical composition, entitled "A Short Description of Pennsylvania; or, a Relation of What Things are Known, Enjoyed, and Likely to be Discovered in the Province." Issued as a token of good-will, ———, of England, by Richard Frame, printed and sold by Wm. Bradford, in Philadelphia, 1692. This iron was probably made in a common smith's fire.

Two years before the death of Penn, in 1718, the first iron works were established in Pennsylvania by one Thos. Rupper. In Day's "Historical Collections" it is stated that Samuel Nutt, of Chester County, built a forge called "Coventry," which went into operation about the year 1720. After the establishment of these works, other works followed, which Mr. Swank describes, but, of course, we have not space to detail them.

We feel very sure that intelligent persons generally will be interested in the information contained in the works the titles of which we have given. They are replete with information, and we regret we can not notice them at greater length.

THE NATIONAL DISPENSATORY. Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines; including those recognized in the Parmacopœias of the United States, Great Britain and Germany, with numerous references to the French Codex. By Alfred Stille, M. D., LL. D., Professor of the Theory and Practice of Medicine, and of Clinical Medicine in the University of Pennsylvania, and John M. Maisch, Phar. D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. Second edition. Thoroughly revised with numerous additions. With two hundred and thirty-nine illustrations. 8vo. pp. 1680. 1879. Philadelphia: Henry C. Lea. Cincinnati: Robert Clarke & Co.

The second edition of this work, following so closely after the first, speaks in the highest terms of its value in the medical profession. When we noticed the first edition, we gave a very full description of it, but on account of the merit of the work, we will again describe some of its features. In this work the treatment of the separate articles, detailed botanical descriptions, have generally been omitted as being of no practical value, but plants yielding drugs have been briefly characterized as to their general aspect and habitat, while fuller descriptions have been given to those which are native or naturalized, or which seemed to require it from the nature of their product. The treatment which the drugs undergo before they reach the hands of the pharmacist also receives attention, because the physical appearance and chemical composition are sometimes influenced thereby. Especial care has been bestowed upon both the external and structural characteristics of drugs, so that they may be readily identified and distinguished from those which resemble them, and, in aid of this object, a limited number of illustrations has been introduced representing their outward forms as well as their histological appearances revealed by the microscope.

In treating of therapeutics, the most trusworthy results of clinical experience are concisely set forth, without discussing the grounds on which they rest. The object of this is to spare the reader the labor of a personal investigation, which could only be made with facilities which few possess. Another feature, novel in a dispensatory, is the therapeutical index. Such an index becomes to some extent a therapeutical classification of medicines, and enhances the working value of the book to the practitioner. In the second edition the page has been enlarged, and the illustrations have been revised. A number have been added, and others substituted for such as were deemed less satisfactory. Another change to be noted is the introduction of several drugs under separate headings, and a large number of drugs, chemicals and pharmaceutical preparations classified as allied drugs and preparations under the heading of more important or better known articles. The classes are expressed in the terms both of troy weight and of the decimal system, thus paving the way for the introduction of the latter method. We would suggest to any person in need of a dispensatory, to consult their own interests and purchase this one by Stille and Maisch.

Yellow Fever. A Nautical Disease. Its Origin and Prevention. By John Gamgee. 8vo. pp. 207. 1879. New York: D. Appleton & Co. Cincinnati: Robert Clarke & Co. Price, $1.50.

It is scarcely necessary for me to say, that the majority of the physicians of this country are more or less interested in any reliable treatise on yellow fever. The wide-spread epidemics of the last two years, and the great mortality, are sufficient to cause the medical profession to search for more knowledge on the subject. A work of the kind before us will be found very valuable. The physician, searching for information on this subject, will become deeply interested by perusing its pages. On page 118 there is given a very complete differential diagnosis between bilious remittent fever and yellow fever. The author gives the method of destroying the germs or spores on ship-board. We will say, in conclusion, that any person desiring information on the subject of yellow fever can not do better than to purchase this work.

EDITORIAL.

Sickness of the Editor.—The Editor of the Medical News has been confined, for over four weeks, to his bed and room. He is happy to say now that, through the skill and active attention of Dr. C. G. Comegys, he is convalescing, and hopes soon to be able to resume his numerous duties.

Thanks are due to W. R. Amick, M. D., 193 West Seventh Street, Specialist in Diseases of the Eye and Ear, for valuable aid in getting out the present number. Much in it he is responsible for.

Laid Over.—We are under the necessity of laying over, until next issue, which will rapidly follow upon the present one, a lengthy but very excellent article by T. L Wright, M. D., of Bellefontaine, Ohio, on "Responsibility Restricted by Insane Delusion." It will be found alike interesting to the physician and the legal man.

Indecency in a Medical College.

We clip the following, which appeared in the Cincinnati *Commercial* of a late date.—Ed.

"A rumor was pretty reliably traced yesterday that developed a curious performance at the College of Medicine and Surgery on George Street, on Wednesday last. It appears that a charity or dispensary patient—a young woman about twenty-three years of age—went to the college in the afternoon of that day for treatment, and that she submitted to an operation before the class. Then it appears that a student named Charles Weber heard a rumor that a fellow-student named Myer told as a joke that yet another student, named Jo. McKenzie had debauched the patient. Then that McKenzie admitted in a joking manner having done so, but pretty soon the matter became serious, and he denied the whole story *in toto*.

"The story was serious enough to spread very rapidly among the hundreds of medical students attending the various medical colleges in the city, and also beyond their circle far enough, at all events, to become pretty public. In this state of affairs *Commercial* reporters were dispatched to trace the story. Dr. Bramble was found, but said he was absent from the city last week, and knew nothing about the affair only what he heard from Dr. Aub.

"Dr. Aub states that on Wednesday last, in the afternoon, he operated on a young woman after administering ether, which was not given in full quantity owing to a difficulty in the patient's breathing. The operation was performed before the class, but he remained with the patient until she fully recovered from the effects of the anæsthetic and walked out of the amphitheater into one of the clinic rooms. Here, he says, he saw the girl take a seat, and then asked her if she had any one with her. She replied that her sister was coming for her. Subsequently he learned that the sister did not come, and that the girl walked away alone from the college.

"He also states that on Friday two students came to him and told him that they heard that the young woman was debauched in the college, and they wanted the parties who did it expelled. He promised to investigate the matter, and did so. The patient returned to the college, and Dr. Aub took her aside and questioned her in regard to the matter charged. He says that she hesitated at first to make any reply, but he insisted upon having the facts, and that the girl finally acknowledged that, with and by her own consent, one of the students had connection with her while two or three others stood in the door of the room. She also admitted that such conduct on her part was common with her."

Obituary.

M. B. Wright, M. D.—It will be with feelings of the deepest regret for the readers of the News to hear of the death of this distinguished obstetrician and lecturer. A large number of physicians assembled in the amphitheater of the Cincinnati Hospital, on Sunday afternoon, August 17th, for action on his death. Dr. B. S. Lawson was called to preside, and took the chair.

The Committee on Resolutions reported the following through Dr. Kemper, Chairman of the Committee:

The medical profession of Cincinnati, with whom he has labored for nearly half a century, in common with his many patrons who were attached to him by strong personal affection, and his numerous students throughout the West who esteemed and venerated him, feel deeply the loss of Dr. Marmaduke Burr Wright.

The sick has lost a wise counselor, the poor a genuine friend, the city a distinguished citizen, science a faithful and honored devotee, and the medical profession a member whose long and valuable life's work entitled him to our highest esteem.

Resolved, That the noble example and attainments of our deceased brother, his ready response to all calls of suffering humanity, his strict adherence to the most approved proprieties of professional intercourse, and his industrious devotion to the science and practice of medicine, are worthy of emulation.

Resolved, That the medical profession tender to the family and friends of the deceased their hearty condolence.

Resolved, That we attend the funeral of Dr. Wright in a body.

And. C. Kemper, J. J. Quinn,
C. F. Thomas, C. D. Palmer,
D. D. Bramble, *Committee.*

James Graham, M. D.—This learned and distinguished physician and lecturer died of uræmia, on Monday, October 6th.

As a lecturer, Dr. Graham stood without a superior, and but very few equals in this country. He, like Dr. Wright, had attained the high position of Emeritus Professor.

At a general meeting of the medical profession, the Committee on Resolutions reported the following:

Dr. James Graham is dead. Some of us here to-day can well remember him as a young man coming to the city thirty years ago to seek fame and fortune; others can remember him as their teacher, while all, until the last few years, preserve strong recollections of him as an able practitioner. Dr. Graham was in many respects an extraordinary man. Gifted with a commanding presence and magnetism of manner, he possessed a logical mind and perceptive power in an unusual degree.

Quick to observe, clear in his reasoning abilities, his conclusions were rapid and correct. As a physician, he, in many respects, was a model. He took little for granted; he was governed still less by authority, relying almost wholly on his own accurate observation for facts. As a man, he had many lovable traits of character. Independent in thought, he was always rather a leader than a follower in the profession. He had a cordial dislike for sham and pretense of all kinds. Like all good physicians, he was generous to the poor, and considerate to his professional brethren.

In the death of Dr. Graham, the medical profession of the city is called upon to lament the loss of one of its oldest and most distinguished members. For over a quarter of a century Dr. Graham has been continually engaged in the regular practice of medicine, and upheld the true dignity of the profession in the broadest sense of the term. He enjoyed in a singular degree the confidence and affection of his patients, and the respect and esteem of his associates. He was a keen diagnostician, a skillful practitioner, and a reliable consultant.

John H. Murphy,
W. W. Seely,
B. Stanton,
J. C. MacKenzie,
John Ludlow,
Committee.

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PHOSPHORUS and COD-LIVER OIL

have now an established position throughout the civilized world as important therapeutical agents. A *perfect combination* of the two has long been a desideratum, since they are both of value in the same disorders, while the cases in which one is demanded and the other contra-indicated are exceedingly rare.

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With regard to the former, it has been decided by the highest chemical and medical authorities that *phosphorus* should be administered *in a free state*, and in a vehicle which ensures its *perfect diffusion*, its *absolute unalterability*, and, as far as possible, its *prompt assimilation* without the gastric irritation to which the ordinary methods of exhibiting the agent give rise. It is well known that pills, emulsions, solutions in ether, chloroform, vegetable oils and resin, etc., have all failed to fulfill one or more of these conditions. Even an ordinary solution of phosphorus in cod-liver oil would not answer the purpose in all respects. We claim, however, that PHOSPHOROLE completely satisfies all the conditions. From the method of preparing it, in an atmosphere of dry carbonic acid, the phosphorus is *entirely dissolved without oxidation*, and by our mode of manipulation *a positive uniformity of strength* is ensured. It is then promptly bottled and sealed, and its *stability and permanence* thus secured. The exact amount of phosphorus in each dose is known, its efficiency is ensured, and the irritant effects upon the stomach are reduced to a minimum by the blandness of the oil. As a means then of administering *phosphorus* in the many cases in which it is indicated as a *nervous tonic and stimulant*, it is claimed that PHOSPHOROLE is the best attainable in the present state of our knowledge.

The value of *cod-liver oil* in phthisis is so familiar to the physician that it is needless to dwell upon it. But the value of *phosphorus* is also universally recognized in this disease, especially when complicated with nervous derangements. The *combination* of the two therefore furnishes a more effective form for the administration of cod-liver oil in the great majority of cases in which that remedy is indicated, and one which will at once commend itself to the profession.

A dose of two teaspoonfuls of PHOSPHOROLE contains $\frac{1}{100}$ of a grain of phosphorus. This dose, when given after a meal, is effective, and not very liable to interfere with digestion. *Phosphorus is cumulative in its action, and should be administered with watchful care.* About $\frac{1}{12}$ grain is considered the largest safe dose, and we rarely need go higher than $\frac{1}{20}$ or $\frac{1}{30}$ of a grain. At the very first appearance of the smallest gastric derangement, the exhibition of phosphorus should be stopped.

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DIRECTIONS.—Dip the plaster, a minute or two, in cold water, and apply with a band.

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Dr. Rabuteau's Dragees (sugar coated pills) do not blacken the teeth, and are assimilated by the most delicate stomachs without causing constipation. Dose, 2 morning and evening, at meal time.

Dr. Rabuteau's Elixir is especially adapted to weak persons, whose digestive functions need strengthening or stimulating.

Dr. Rabuteau's Syrup is especially prepared for children, who take it readily because of its agreeable taste.

Prepared by CLIN & CO., Pharmacists, Paris.

BLANCARD'S PILLS
OF UNCHANGEABLE IODIDE OF IRON.

Blancard's Pills of Iodide of Iron are so scrupulously prepared, and so well made, that none other have acquired a so well deserved favor among physicians and pharmaceutists. Each pill, containing one grain of proto-iodide of iron, is covered with finely pulverised iron, and covered with balsam of tolu. Dose, two to six pills a day. The genuine have a *reactive silver seal* attached to the lower part of the cork, and a green label on the wrapper, bearing the fac-simile of the signature of Blancard *Pharmacien, No. 40 Rue Bonaparte, Paris.* without which none are genuine.

BEWARE OF IMITATIONS.

PARIS, 1867 | 1868. | 1872. | 1873, VIENNA.

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BOUDAULT'S PEPSINE,

And Wine, Elixir, Syrup, Pills and Lozenges of Pepsine.

Since 1854, when Pepsine was first introduced by Messrs. CORVISART and BOUDAULT, **Boudault's Pepsine** has been the only preparation which has at all times given satisfactory results.

The medals obtained by **Boudault's Pepsine** at the different exhibitions of 1867, 1868, 1872, and recently at the Vienna Exhibition of 1873, are unquestionable proofs of **its excellence.**

In order to give physicians an opportunity to judge for themselves, all Boudault's Pepsine will hereafter be accompanied by a circular giving plain directions for testing it. These tests will enable any one to satisfy himself of the **superiority of Boudault's Pepsine,** which is really the *cheapest,* since its use will not subject physicians and patients alike to disappointment.

CAUTION.—In order to guard against imitations each bottle will hereafter be sealed by a red metallic capsule, bearing the stamp of our trade mark, and secured by a band having a fac-simile of the medals, and the signature of Hottot, the manufacturer.

Is sold in 1 oz., 8 oz., 16 oz., Bottles.

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The form of Globules is by far the most convenient as well as the most elegant form for administering liquid preparations or powders of unpleasant taste or odor. The following varieties are now offered :

Globules of **Ether; Chloroform; Oil of Turpentine; Apiol;**
Phosphorated Oil, containing 1-60th grain of Phosphorus;
Phosphorated Oil, containing 1-30th grain of Phosphorus;
Tar; Venice Turpentine; Copaiba; Copaiba & Tar;
Oleo-Resin of Cubebs; Balsam of Peru;
Oil of Eucalyptus; Cod Liver Oil; Rhubarb;
Bi-carb. of Soda, Sulph. Quinia, &c.

The superiority of these Globules over other forms consists in the ease with which they are taken, and in their ready solubility and hence promptness of action.

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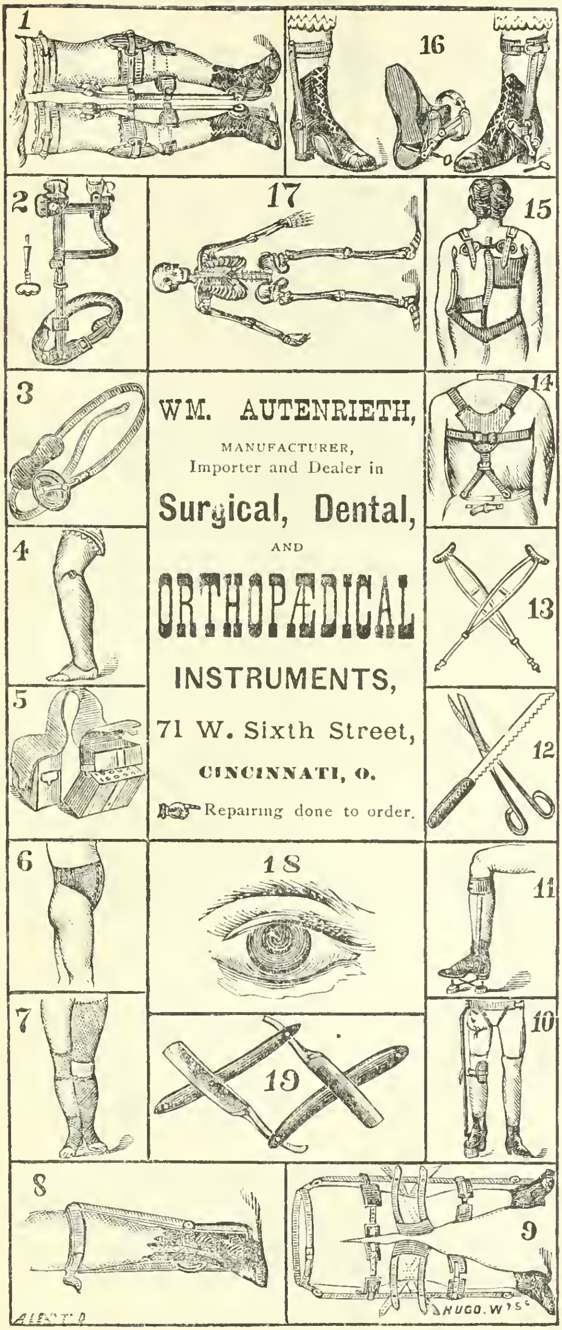

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Send for Circulars for Measurements.

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EXTRACT OF MALT,

Prepared from the Best Canada Barley Malt by an Improved Process.

Attention is invited to the following Analysis of this Extract, as given by S. H. Douglas, Prof. of Chemistry, University of Michigan, Ann Arbor.

TROMMER EXTRACT OF MALT CO.:

I inclose herewith my analysis of your EXTRACT OF MALT: Malt Sugar (Glucose), 46.1; Dextrine Hop-bitter Extractive Matter 23.6; Albuminous Matter (Diastase), 2.466; Ash (Phosphates), 1.712; Alkalies, .377; Water, 25.7. Total, 99.958.

In comparing the above analysis with that of the Extract of Malt of the German Pharmacopœia, as given by Hagar, that has been so generally received by the profession, I find it to substantially agree with that article.

Yours truly, SILAS H. DOUGLAS

Professor of Analytical and Applied Chemistry.

This preparation is highly recommended by physicians as an effective agent for the restoration of delicate and exhausted constitutions. It is very nutritious, being rich in both muscle and fat producing materials

By American and foreign authorities the MALT EXTRACT is extolled in the treatment of impaired, difficult and "irritable" digestion, loss of appetite, sick headache, chronic diarrhea, cough, bronchitis, asthma consumption, the debility of females and of the aged, in retarded convalescence from exhausting diseases, and all depressing maladies. It is often borne by the stomach when every kind of food is rejected.

In addition to the Extract of Malt with Hops, the attention of physicians is invited to the following combinations:

IMPROVED

Trommer's Extract of Malt,

FERRATED.

Each dose contains four grains of the Pyrophosphate of Iron.

IMPROVED

Trommer's Extract of Malt,

WITH CITRATE OF IRON AND QUINIA.

Each dose contains four grains of the Citrate of Iron and Quinia.

IMPROVED

Trommer's Extract of Malt,

With Cod Liver Oil and Iodide of Iron.

Consisting of equal parts of Extract of Malt and Cod Liver Oil, Iodide of Iron being added in the proportion of one grain to the dose.

IMPROVED

Trommer's Extract of Malt,

WITH COD LIVER OIL.

Consisting of equal parts of Extract of Malt and the best Cod Liver Oil.

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Trommer's Extract of Malt,

With the Iodides of Iron and Manganese.

Each dose contains one grain each of the Iodides of Iron and Manganese.

IMPROVED

Trommer's Extract of Malt,

WITH HYPOPHOSPHITES.

Each dose contains 2 grains Hypophosphite of Lime: 2½ grains Hypophosphite of Soda, and 1 grain each of the Hypophosphites of Potassa and Iron.

IMPROVED

Trommer's Extract of Malt,

WITH ALTERATIVES

Each dose contains the proper proportions of the Iodide of Calcium and Iron, and of the Chlorides and Bromides of Magnesium, Sodium and Potassium.

IMPROVED

Trommer's Extract of Malt,

WITH PEPSIN.

Each dose contains six and one-fourth grains of Pepsin and two and one-eighth minims of Hydrochloric Acid.

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TROMMER EXTRACT OF MALT CO., Fremont, O.

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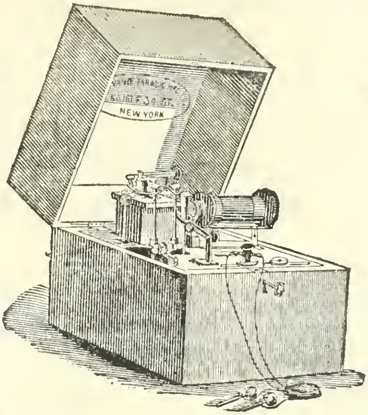

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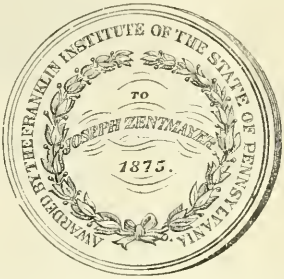
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CATALOGUE ON APPLICATION.

Sept-1y

TO THE MEDICAL PROFESSION.

MALTINE.

(EXTRACT OF MALTED BARLEY, WHEAT & OATS.)

THIS PREPARATION
Contains from three to five times the
Medicinal and Nutritive Elements found in
Extract of Malt.

MALTINE is a highly concentrated extract of malted Barley, Wheat and Oats, containing, undiminished and unimpaired, all the medicinal and nutritious principles found in these cereals. By the most carefully conducted scientific process, we are enabled to offer to the medical profession a perfect article, possessing from three to five times the therapeutic and nutritive merit of any foreign or domestic Extract of Malt.

In support of our claims we invite the attention of the profession to the following points, viz:

FIRST: In the manufacture of MALTINE the evaporation necessary to reduce it to its great density is conducted in vacuo, at a temperature ranging from 100° to 120° Fahr.; while most manufacturers of Extract of Malt resort to "open pan" or low pressure steam boiling, by neither of which processes can the extract be so produced as to preserve the Diastase, Phosphates, and Albuminoids on which its remedial value so greatly depends, and the product is either of a dark color or of low specific gravity, possessing little virtue aside from the saccharine matter which it contains.*

SECOND: Carbon Hydrogen, Nitrogen, Phosphorus, Sulphur, Iron, Magnesium and Potassium are essential elements in the food of man, and it is only in MALTINE, containing the combined properties of malted Barley, Wheat, and Oats that all these principles can be found in the proper proportions; Extract of Malt made from Barley alone is wanting in some of the most important of these elements.

THIRD: Gluten is the most nutritious principle found in the cereals, and is the only vegetable substance which will alone support life for any great length of time. It is composed of three distinct nitrogenous principles, together with fatty and inorganic matters, and is analogous to animal fibrin. MALTINE contains twenty times the quantity of Gluten found in any Extract of Malt.

FOURTH: Liebig says, "Wheat and Oats stand first among our list of cereals in combining all the elements in proportions necessary to support animal life. They are especially rich in muscular and fat producing elements." The only reason we use malted Barley in the manufacture of MALTINE is that it contains larger productions of mineral matters (bone producers) and Diastase. It is deficient in all other essential elements.

We believe that any practitioner will readily recognize the superiority of MALTINE, and would request a trial and comparison of merits with any article offered for similar uses.

---

* As a sure test for Diastase, and the Albuminoids, a small quantity should be put in a test tube or small vial, largely diluted with water, and heated to the boiling point, when the Albumen, if present will coagulate, and appear in little flocculent particles throughout the liquid. If the extract remains clear, it is proof that it has already been coagulated by excessive heat, and removed by filtration during the process of manufacturing. Any heat which will coagulate albumen will inevitably destroy the digestive power of Diastase.

(OVER.)

The Nitrogenous constituents of MALTINE have a composition identical with that of the chief constituents of the Blood, and therefore contain nearly every element requisite for the reproduction of the human body.

MALTINE AND ITS COMPOUNDS

Can undoubtedly be used with greater success than any other remedy now known in cases of general and nervous Debility, Indigestion, imperfect Nutrition and deficient Lactation; Pulmonary affections, such as Phthisis Coughs, Colds Hoarseness, Irritation of the Mucous Membranes and difficult expectoration; Cholera Infantum and wasting diseases of children and adults, Convalescence from Fevers, and whenever it is necessary to increase the vital forces and build up the system.

We manufacture the following preparations, the formulas and doses of which are given in our dose books and on the label attached to each bottle:

MALTINE with Hops.

MALTINE, Ferrated:
This combination is specially indicated in Anæmia and Chlorosis, and in all cases of defective nutrition, where Iron is deficient in the system.

MALTINE with Phosphates Iron and Quinia:
A powerful general and nutritive tonic.

MALTINE with Phosphates Iron, Quinia and Strychnia:
A powerful nutritive, general and nervous tonic.

MALTINE with Hypophosphites:
This preparation is specially indicated in Phthisis, Rickets, and deficient Ossification.

MALTINE with Pepsin and Pancreatine:
One of the most efficient combinations in Dyspepsia, Cholera Infantum and all diseases resulting from imperfect nutrition. It contains three of the all-important digestive agents, Diastase being one of the constituents of the MALTINE. We believe there are few cases of Dyspepsia which will not readily yield to the medicinal properties of the above combination, while the system is invigorated by its nutritive qualities.

MALTINE with Beef and Iron:
One of the most valuable combinations in cases of general Debility, when there is deficient nutrition and a deficiency of Iron in the system.

MALTINE with Cod Liver Oil:
The most perfect emulsion and most agreeable and effective mode of administering this nauseous but valuable Oil yet discovered.

MALTINE with Cod Liver Oil and Phosphorus:
In this combination the Phosphorus has no irritant effect upon the stomach.

MALTINE with Cod Liver Oil and Iodide of Iron:
This is prepared with the tasteless Iodide of Iron, which undergoes no chemical change from contact with the Oil, and does not blacken the teeth.

MALTINE with Alteratives:
In this preparation MALTINE is combined with the most valuable Alteratives known, such as Iodides Bromides, and Chlorides, and will fully meet the requirements of the practitioners in Syphilis, Scrofula, and all depraved conditions of the blood. Each fluid ounce contains: Chloride Calcium, 10 grains; Chloride Magnesium, 10 grains; Bromide Sodium, 5 grains; Iodide Potassium, 1 grain; Iodide Iron, ¼ grain. Dose: One teaspoonful to one tablespoonful.

We also manufacture a perfectly prepared Extract of Malt from Barley only.

MALTINE preparations are sold at the same prices as Extract of Malt and its combinations, and are put up in amber bottles holding sixteen fluid ounces; each bottle inclosed in a folding paper box

REED & CARNRICK, *Manufacturing Pharmacists,*

196 & 198 FULTON ST., NEW YORK.

SCOTT'S EMULSION

PURE COD LIVER OIL

WITH

HYPOPHOSPHITES OF LIME AND SODA

PERFECT, PERMANENT, PALATABLE.

We respectfully ask the Medical Profession to give the above preparation a trial, knowing they will find it just the thing long desired, and obtain splendid results in the wasting diseases indicated by mal-nutrition and assimilation. The *perfect* and *permanent* union of the Cod Liver Oil with the Hypophosphites, and the thorough manner in which the nauseous taste is disguised, renders it so palatable that the most delicate stomach can retain it. The notable advantage it possesses over all other preparations, is its permanency as an emulsion, remaining for an almost unlimited time without the slightest separation or change, which enables the Physician always to prescribe it in its proper proportions. This oil is prepared expressly for us and guaranteed strictly pure. We will gladly furnish, express paid, a 4 oz. sample to any Physician in the country who may not have been supplied.

FORMULA.—50 per cent. of pure Cod Liver Oil, 6 grs. of the Hypophosphite of Lime, and 3 grs of the Hypophosphite of Soda to a fluid ounce.

MESSRS. SCOTT & BOWNE:

Gentlemen:—I have used the Emulsified Cod Liver Oil and Hypophosphites prepared by you, and have been much gratified with its results.

T. S. BELL, Louisville, Ky.

MESSRS. SCOTT & BOWNE:

For the last fifteen months I have used your Cod Liver Oil Emulsion, both in hospital and in private practice, and have been greatly pleased with its effects. It is better borne, and can be taken for a longer time, than any other preparation of Cod Liver Oil. In Children's Diseases I have found it especially valuable.

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C. A. Spencer & Sons, Opticians,

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C. A. Spencer & Sons herewith present to microscopists their lately revised price list of Objectives.

Having brought the results of a lengthened experience to their construction, they can claim for them not only a higher grade of excellence than has heretofore been reached for those of corresponding price but a uniformity of quality which insures purchasers against the losses and annoyances arising from the great and notorious inequality usually found in Objectives of nominally the same price and character. Every one of the Objectives of each of the following series has its standard, below which its grade is never allowed to fall; and when any member of the several series is improved, it becomes, in turn, a higher standard to which all like powers must thereafter be made fully equal Our business will not tolerate "good-luck Objectives." A skill which can repeat results with any consecutive number of Objectives, is, we believe, a claim which we may justly make, and intend fully to sustain.

As it is not possible, within prescribed limits, to particularize in reference to each Objective, we may refer to some of the powers of each Series as representatives, approximatively, of the qualities belonging thereto.

All of the 4-system Objectives of the First-class Series, from and including the ¼ inch, upward, will, when used as immersion resolve the *Balsam-mounted* Amphipleura Pellucida, the nineteenth band of Nobert, and every other known test-object, with good daylight and concave mirror. Their immersion angle is equivalent to above 180° in air.

Of the Professional Series, the ½ inch of 65° will resolve P. Angulatum (Moeller's) into dots by oblique light with concave mirror; the ¼ inch, of same Series, will resolve the same test easily by mirror with central light; the N Rhomboides (larger frustules, dry mounted) of Bemis Lake into dots by oblique mirror-illumination; the 1-6 of 140°, D and I same Series, will resolve Surirella Gemma *into dots;* the ⅛ of 160°, D and I, will resolve Amphipleura Pell. (dry mount) by concave mirror and white-cloud illumination; and the 1-18 will resolve the same test and has unusually great working distance.

Of the Student's Series, the ¼ inch of 100° will resolve P Angulatum by central light with mirror; and the ⅛ of 112° will resolve the finer lines of Surirella Gemma. The ⅔ of this Series is remarkable for perfect flatness of field and excellent definition.

FIRST-CLASS OBJECTIVES.

3	inch Focal Length,	12°	Angular Aperture	$15 00
2	" " "	20°	" "	25 00
1	" " "	50°	" " Will show 40 000 lines to the inch	40 00
⅔	" " "	45°	" " " " " " " "	30 00
½	" " "	100°	" " " P Angulatum with central light	50 00
¼	" Dry and Im "	180°	As Immersion will show Balsam mounted, Am. Pellucida, and the Immersion angle is equivalent to above 180° in air. 4 systems	65 00
1-6	" " "	....		65 00
1-8	" " "	....		70 00
1-10	" " "	....		70 00
1-16	" " "	....		100 00
1-25	" " "			150 00
1-50	" Immersion "	175°		200 00
1-75	" " "	175°		250 00

Graduated collar adjustment from ½ inch inclusive upward, giving rectilinear movement to the inner systems.

PROFESSIONAL SERIES.

FOCAL LENGTH.	ANG.	PRICE	
3 inch	12°	$15	
2 inch	15°	15	
1 inch	30°	15	
2-3 inch	35°	18	
1-2 inch	65°	20	
1-4 inch	115°	20	Adjustable.
1-6 inch, D and I	140°	25	"
1-8 inch, D and I	160°	40	"
1-15 inch, Im	160°	45	"
1-18 inch D and I	160°	55	"

STUDENT'S SERIES

FOCAL LENGTH	ANG	PRICE.
3 inch	8°	$ 6
2 inch	10°	6
1 inch	20°	8
2-3 inch	30°	10
1-2 inch	45°	10
1-4 inch	100°	14
1-8 inch	112°	20
1-16 inch	120°	30

BARON LEIBIG, the greatest authority on Infant Diet, states that the majority of children who die under one year of age, do so from the effects of improper food, or from the improper administration of the food.

HORLICK'S FOOD.

A Concentrated Extract, prepared according to the Formula of Baron Liebig, and, unlike other Foods,

IS NOT FARINACEOUS.

TRADE MARK.

HORLICK'S FOOD

It is acknowledged by Physicians to be the best Food

For Infants, Dyspeptics and Invalids.

Prof. J. Lewis Smith Says,

Speaking of **HORLICK'S FOOD:** "Being carefully prepared, according to Liebig's Formula, by Chemists fully competent, it possesses certain advantages, such as quick and easy preparation and a pleasant flavor, and is therefore highly esteemed by those who have used it." [*Page* 58 *of the fourth edition of a Treatise on Diseases of Infancy and Childhood. By J. Lewis Smith, M. D., etc.*—1879] Also, speaking in another place [page 647] of artificial food for infants, especially those suffering from intestinal catarrh, he says: "I prefer Liebig's, especially **HORLICK'S** preparation of it."

Report from Bellevue Hospital, New York.

In *The Hospital Gazette* for February 6th. 1879 [page 108] Dr. E. Hochheimer makes a report from BELLEVUE HOSPITAL of a case of Infantile Paralysis, which was followed by an exhausting diarrhœa—Speaking of the treatment, he says: "Her condition continued unchanged for the next three weeks; she was put upon a diet consisting principally of milk, but the diarrhœa persisted in spite of opiates and astringents."

"*Nov. 17th.—Milk was stopped, and she was put upon a diet of HORLICK'S FOOD; after this she began to mend, the diarrhœa became less and finally disappeared; she began to gain flesh, and her general condition was much improved.*"

We also beg to refer, by permission, to the following eminent medical men, who have used our Food extensively in their practice:—**Prof. DeLaskie Miller,** (Rush Medical College); **Prof. Wm. H. Byford,** (Chicago Medical College); **Prof. J. Adams Allen,** (Rush Medical College); **Drs. J. P. Oliver** and **C. P. Putnam,** (Harvard Medical School); **Prof. Gawne,** (Cleveland Medical College); and several hundred others, whose testimonial letters are on file in our office.

PRICE, 75 Cents per bottle. Trial Size, 40 Cents.

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Dr. JEROME KIDDER'S

ELECTRICAL DEPOT,

820 BROADWAY, NEW YORK.

The discrimination in the Centennial awards, as is well known, existed in THE WRITTEN REPORTS ON AWARDS by the judges, and not in the medals, which were all alike. Dr. Kidder, as far as he knows, is the only one who has published any authorized report upon such apparatus The Centennial award is as follows:

International Exhibition,

PHILADELPHIA, 1876.

The United States Centennial Commission has examined the report of the Judges, and accepted the following reasons, and decreed an award in conformity therewith.

PHILADELPHIA, *Feb.* 24, 1877.

REPORT ON AWARDS.

"PRODUCT,

GALVANIC APPARATUS.

Name and Address of Exhibitor,

JEROME KIDDER, M. D., New York.

The undersigned, having examined the product herein described, respectfully recommend the same to the United States Centennial Commission for award for the following reasons: For the **Scientific basis** and the excellent workmanship of all the exhibited Apparatus; for the introduction of a new method to get very rare interruptions from a self-acting interrupter; for the fitness for the purposes of **changing the quality and quantity** of the galvanic current, and for the very good construction of Galvano-Caustic Apparatus.

Dr. ERNST FLEISCHL, *Signature of the Judge.*

Approval of the Group of Judges.

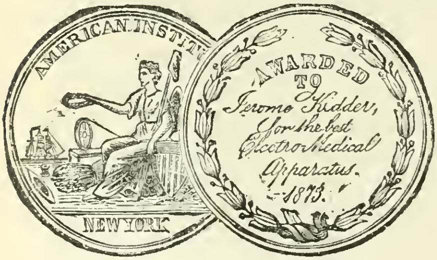
W. ROTH, M. D., *Surg.-Gen., Saxony, German Army.*
J. H. THOMPSON, A. M., M. D.
C. B. WHITE, M. D.

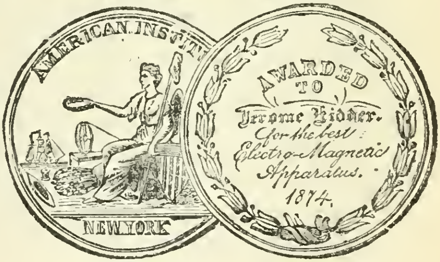
A True Copy of the Record.

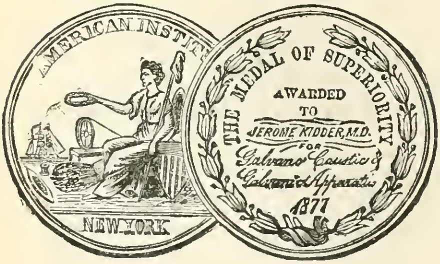
FRANCIS A. WALKER, *Chief of the Bureau of Awards.*

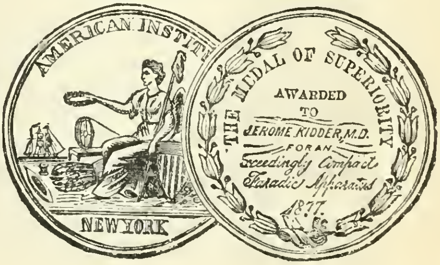
Given by Authority of the United States Centennial Commission.

J. R. HAWLEY, *President.*
A. T. GOSHORN, *Director-General.*
J. L. CAMPBELL, *Secretary.*









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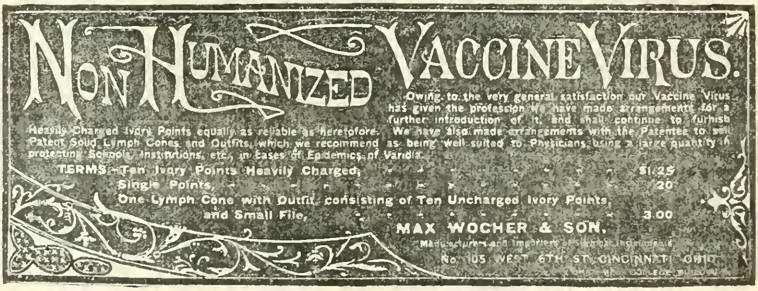

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THE PRELIMINARY AUTUMNAL TERM for 1879-'80 will begin on Wednesday, September 1 1879, and continue until the opening of the Regular Session. During this term instruction, consisting of didactic lectures upon special subjects, and daily clinical lectures, will be given, as heretofore, by the entire Faculty, in the same number and order as during the Regular Session. Students expecting to attend the Regular Session are recommended to attend the Preliminary Term, but such attendance is not required.

THE REGULAR SESSION will begin on Wednesday, October 1, 1879. and end about the 1st of March, 1880. During this Session, in addition to four didactic lectures on every week-day except Saturday, two or three hours are daily allotted to clinical instruction.

THE SPRING SESSION consists chiefly of recitations from Text-Books. This Session begins on the 1st of March and continues until the 1st of June. During this Session, daily recitations in all the departments are held by a corps of examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

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Lecturer upon Diseases of the Throat.

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FEES FOR THE SPRING SESSION.

Matriculation (Ticket valid for the following winter)	$ 5 00
Recitations, Clinics, and Lectures	35 00
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JOHN C. DALTON, M. D., Professor of Physiology and Hygiene.

THOMAS M. MARKOE, M. D., Professor of the Principles of Surgery.

T. GAILLARD THOMAS, M. D., Professor of Gynæcology.

JOHN T. METCALFE, M. D., Emeritus Professor of Clinical Medicine

HENRY B. SANDS, M. D., Professor of the Practice of Surgery.

JAMES W. McLANE, M. D., Professor of Obstetrics and the Diseases of Children.

THOMAS T. SABINE, M. D., Professor of Anatomy.

CHARLES F. CHANDLER, Ph. D., Professor of Chemistry and Medical Jurisprudence.

EDWARD CURTIS, M. D., Professor of Materia Medica and Therapeutics,

FRANCIS DELAFIELD, M. D., Adjunct Professor of Pathology and Practical Medicine.

JOHN G. CURTIS, M. D., Adjunct Professor of Physiology and Hygiene, Secretary of the Faculty.

WM. DETMOLD, M. D., Emeritus Professor of Military and Clinical Surgery.

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ABRAHAM JACOBI, M. D., Clinical Professor of Diseases of Children.

FESSENDEN N. OTIS, M. D., Clinical Professor of Venereal Diseases.

EDWARD C. SEGUIN, M. D., Clinical Professor of Diseases of the Mind and Nervous System.

GEO. M. LEFFERTS, M. D., Clinical Professor of Laryngoscopy and Diseases of the Throat.

CHAS. McBURNEY, M. D., Demonstrator of Anatomy.

WM. T. BULL, M. D., Assistant Demonstrator of Anatomy.

FRANCIS DELAFIELD, M. D ,
Director of the Pathological Laboratory of the Alumni Association.

FACULTY OF THE SPRING SESSION.

JAMES L. LITTLE, M. D., Lecturer on Operative Surgery and Surgical Dressings.

GEORGE G. WHEELOCK, M. D., Lecturer on Physical Diagnosis.

ROBERT F. WEIR, M. D., Lecturer on Diseases of the Genito-Urinary Organs.

H. KNAPP, M. D., Lecturer on Diseases of the Eye and Ear.

T. A. McBRIDE, M. D., Lecturer on Symptomatology.

CHAS. McBURNEY, M. D., Lecturer on the Anatomy of the Nerves.

The COLLEGIATE YEAR embraces a special *Spring* and a regular *Winter* Session, attendance at the latter only being required for the graduating course. The Spring Session begins in March, and continues till June 1st. The *Regular Winter Session* for 1879-80 begins October 1st, and continues till March.

TUITION is by the following methods:

I. Didactic Lectures.—During the *Winter Session* from five to six lectures are given daily by the Faculty. Attendance obligatory. During the *Spring Session* two lectures are given daily by the Faculty of the Spring Session. Attendance optional.

II. Clinical Teaching.—Ten Clinics, covering all departments of medicine and surgery, are held weekly throughout the entire year in the College Building. In addition, the Faculty give daily Clinics at the larger City Hospitals and Dispensaries (such as the Bellevue, Charity, New York and Roosevelt Hospitals, the New York Eye and Ear Infirmary, etc.), as a regular feature of the College Curriculum. Attendance optional.

III. Recitations are held daily throughout both sessions. Attendance optional.

IV. Personal Instruction.—Cases of *Obstetrics* are furnished without charge. Personal instruction is given in *Practical Anatomy, Operative Surgery, Minor Surgery, Physical Diagnosis, Ophthalmology, Otology, Laryngoscopy, and in Normal and Pathological Histology.* Attendance optional, except upon Practical Anatomy.

Expenses.—The *necessary* expenses are a yearly Matriculation fee ($5, good for a collegiate year), the fees for the lectures of the Winter Session ($20 for the course on each branch, or $140 for the entire curriculum). The Practical Anatomy fee ($10, and a small charge for material), and a Graduation fee of $30. The graduating course requires three years' study, attendance upon two full winter courses of lectures, and upon one course of Practical Anatomy. Remissions and reductions of lecture-fees are made to graduates, and students who have already attended two full courses. *All fees are payable in advance.* *Board* can be had for from $5 to $9 a week, and the clerk of the College will aid students in obtaining it.

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THE COLLEGIATE YEAR is divided into three Sessions—a Preliminary Session, a Regular Winter Session, and a Spring Session.

THE PRELIMINARY SESSION will commence September 17, 1879, and will continue until the opening of the Regular Winter Session. It will be conducted on the plan of that Session.

THE REGULAR WINTER SESSION will commence on the first of October, 1879, and end about the first of March, 1880.

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In addition to the daily Hospital Clinics, there are eight Clinics each week in the College Building. Five Didactic Lectures will be given daily in the College Building, and Evening Recitations will be conducted by the Professors of Chemistry, Practice, Anatomy, Materia Medica, etc., Physiology, Surgery, and Obstetrics, upon the subjects of their lectures.

THE SPRING SESSION embraces a period of twelve weeks, beginning in the first week of March and ending the last week of May. The daily Clinics, Recitations, and Special Practical Courses will be the same as in the Winter Session, and there will be Lectures on Special Subjects by the members of the Post-Graduate Faculty.

THE DISSECTING-ROOM is open throughout the entire Collegiate Year. Material is abundant, and it is furnished free of charge.

Students who have studied two years, and who have attended two full courses of lectures, may be admitted to examination in Chemistry, Anatomy, and Physiology; and, if successful, will be examined at the expiration of their full course of study on Practice, Materia Medica, and Therapeutics, Surgery, and Obstetrics; but those who prefer it may have all their examinations at the close of their full term.

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Prof. Charles Inslee Pardee, M. D.,

University Medical College, 410 East Twenty-Sixth St., New York.

TO PHYSICIANS.

The scarcity and high prices of Cinchona barks and Sulphate of Quinia, and the prospect of only a slight reduction in these prices, makes the present a favorable opportunity of calling the attention of the profession to the *combination of all the bark alkaloids.*

Much attention has been given to this subject in Europe and India.

The growing appreciation by the medical profession of the United States of

CINCHO-QUININE

is due to the fact that it retains the important alkaloids IN COMBINATION, — a combination which in practice is *preferable to perfect isolation or separation* of these alkaloids.

In addition to its superior efficacy as a tonic and anti-periodic, it has the following advantages, which greatly increase its value to physicians : —

1st, *It exerts the full therapeutic influence of* Sulphate of Quinine, *in the same doses*, without oppressing the stomach, creating nausea, or producing cerebral distress, as the Sulphate of Quinine frequently does; and it produces much less constitutional disturbance.

2d, It has the great advantage of being *nearly tasteless.* The bitter is very slight, and not unpleasant to the most sensitive, delicate woman or child.

3d, It is *less costly:* the price will fluctuate with the rise and fall of barks, but will always be much less than the Sulphate of Quinine.

4th, It meets indications not met by that Salt.

The following well-known Analytical Chemists say :—

"University of Pennsylvania, Jan. 22, 1875.
"I have tested Cincho-Quinine, and have found it to contain *quinine, quinidine, cinchonine, cinchonidine.* F. A. GENTH,
Professor of Chemistry and Mineralogy."

"Laboratory of the University of Chicago, Feb. 1, 1875.
"I hereby certify that I have made a chemical examination of the contents of a bottle of Cincho-Quinine; and by direction I made a qualitative examination for *quinine, quinidine,* and *cinchonine,* and hereby certify that I found these alkaloids in Cincho-Quinine.
C. GILBERT WHEELER,
Professor of Chemistry."

"I have made a careful analysis of the contents of a bottle of your Cincho-Quinine, and find it to contain *quinine, quinidine, cinchonine,* and *cinchonidine.*
S. P. SHARPLES, *State Assayer of Mass.*"

TESTIMONIALS.

"Wellfleet, Mass., Nov. 17, 1876.
"I have used Cincho-Quinine, and can say without any hesitation it has proved superior to the sulphate of quinine. J. G. JOHNSON, M.D."

"Martinsburg, Mo., Aug. 15, 1876.
"I use the Cincho-Quinine altogether among children, preferring it to the sulphate.
DR. E. R. DOUGLASS."

"Liverpool, Penn., June 1, 1876.
"I have used Cincho-Quinine, obtaining better results than from the sulphate in those cases in which quinine is indicated.
DR. I. C. BARLOTT."

"Renfrow's Station, Tenn., July 4, 1876.
"I am well pleased with the Cincho-Quinine, and think it is a better preparation than the sulphate. W. H. HALBERT."

"St. Louis, Mo., April, 1875.
"I regard it as one of the most valuable additions ever made to our materia medica.
GEORGE C. PITZER, M.D."

"Richmond, Va., March 28, 1877.
"I believe that the *combination* of the several cinchona alkaloids is more generally useful in practice than the sulphate of quinine uncombined.
"Yours truly, LANDON B. EDWARDS, M.D.
Member Va. State Board of Health, and Sec'y and Treas. Medical Society of Va."

"Centreville, Mich.
"I have used several ounces of the Cincho-Quinine, and have not found it to fail in a single instance. I have used no sulphate of quinine in my practice since I commenced the use of the Cincho-Quinine, as I prefer it. F. C. BATEMAN, M.D."

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908 East Cumberland St., Philadelphia, Penn.,
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"In typhoid and typhus fevers I always prescribe the Cincho-Quinine in conjunction with other appropriate medicines, the result being as favorable as with former cases where the sulphate had been used.
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